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‘Local Food’ Systems in County Durham:

The capacities of community initiatives and local food businesses to build a more resilient local food system

Amy Mycock

This thesis provides a critical assessment of the capacities of ‘local food’ businesses and community-led local food initiatives - in County Durham, North East England - to build resilience into our food systems. Resilient social-ecological systems are able to respond to, and recover from, external impacts. It finds that Durham’s local food scene – including the practices of local food businesses, allotment holders and Durham Local Food Network - encompasses people actively engaged in a range of practices, who have diverse motivations for, and understandings of local food. These emergent and renewed forms of social-ecological response are shown to collectively build resilience into the local food system, making the food system less vulnerable to the challenges of climate change, declining non-renewable resource bases, and economic contraction. An overarching consideration is the extent to which these discourses are important to food localisation agendas and action within the local food scene.

Taking a participatory action research approach, the research process built in practical outcomes which aimed to strengthen the local food ‘scene’ in County Durham, employing a variety of methods including questionnaires, in-depth interviews with key actors, and participation as a local food activist.

The thesis first demonstrates how local food activities are building resilience. It then examines the multifarious meanings, principles and values that local food instantiates and peoples’ motivations for producing and consuming local food. Following this, is a consideration of the social relations sustaining the local food scene. Finally, it analyses the potential for increasing the capacity of the local food scene and barriers to realising this.

‘Local Food’ Systems in County Durham:
The capacities of community initiatives and local food
businesses to build a more resilient local food system

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Masters of Arts by Research

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June 2011

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Glossary of acronyms, abbreviations and key terms

CSA: Community Supported Agriculture (schemes): A community of individuals who pledge support to share the risks of food production, often also volunteering as producers themselves.

DEFRA: Department of Environment, Farming and Rural Affairs.

DLFN: Durham Local Food Network: a group of local food enthusiasts, growers, producers, farmers and consumers who aim to increase local food production in the Durham area by sharing local food news via an email network. Posts to the Network include news about local food events, courses and new businesses, for example.

DLF website: Durham Local Food website: www.durhamlocalfood.org.uk, created and maintained by local food enthusiasts from Durham Local Food Network.

ESA: Environmentally Sensitive Area

Food System: a means of conceptualising the interactions between people, in relation to food.

GHG: Greenhouse Gas

Local Food: discussed in Chapter 5, *Subjectivities of Local Food*.

Local Food Businesses: This involves more than the conventional meaning of ‘business’ to also include local food social enterprises, for example. All local food businesses in the study identified themselves as such.

Local Food Scene: Rather than ‘community’ or ‘culture’ or ‘foodscape’, I describe the sum of the groups who identify themselves as associated with local food as a ‘scene’, in the sense of a socio-cultural sphere of activity. I have not called it a movement, in the sense of a ‘new social movement’, because not all people involved in local food activity aspire to transform the existing system. Few people in the scene considered themselves activists and many collaborators were concerned only with local change, and not necessarily with the systemic effects of change.

Localism versus localisation: *Localism* and *localisation* refer to different concepts. Rob Hopkins (2010), founder of the Transition movement distinguishes the two: “*Localism* is about the devolution of power, a devolving of decision making to the lower levels, to communities and to local government. *Localisation* is about shifting the focus of economic activity to local markets, to meeting local needs, where possible, though local production. Localism certainly creates a more conducive context within which localisation can flourish, but localism, as promoted by the current administration, still takes place within the wider context of globalised economic growth, which in turn drives energy dependency and carbon emissions.”

Locality/regional speciality food: The term local food is distinct from locality foods. Locality foods are primarily recognised as *types of luxury or fine foods traditionally associated with an area* although their distribution can be wide (e.g. Marsden et al, 2002). An example of an organisation promoting locality foods in the North East is Northumbria Larder.

MP: Member of Parliament

PAR: Participatory Action Research

Peak Oil: “The highest annual *production* of oil from a field or region” (UK Energy Research Centre 2009:xv)

Permaculture: An approach to designing systems modelled on relationships in natural ecosystems in order to maximise efficiency in creating a self-sustaining, low input/high output, non-exploiting whole. (For example see: Holmgren 2002, Whitefield 2004, Burnett & Strawbridge 2008)

One North East (ONE): The Regional Development Agency for North East England, due to disband in March 2012.

Q1Allot.: In reference to results from ‘question one’ of my ‘allotment questionnaire’ (see appendix D for profile of allotment questionnaire respondents)

Q1DLFN: In reference to results from ‘question 1’, of my Durham Local Food Network questionnaire’ (see appendix E for profile of DLFN questionnaire respondents)

Q1LFB: In reference to results from ‘question 1’ of my ‘local food business questionnaire’ (see appendix F for profile of local food business questionnaire respondent)

Resilience: In relation to the dynamics of a social-ecological system, when it is “disturbed far from its modal state” (Walker *et al.* 2004), resilience has been described as “the capacity of a system to absorb disturbance and reorganize while undergoing change so as to still retain essentially the same function, structure and feedbacks, and therefore identity, that is, the capacity to change in order to maintain the same identity.”(Folke *et al.* 2010: unpaginated). Further to the capacities to adapt and transform, resilient systems reduce their vulnerability and can have the capacity to seek opportunities to benefit from change.

SME: Small and medium-sized enterprise

Transition movement: This refers to the network of Transition Initiatives, formerly known as Transition Towns, which seek to promote community level responses to peak oil, climate change and economic contraction. For more on the Transition movement see <http://www.transitionnetwork.org/about/principles>, or *The Transition Handbook*, Hopkins, R. (2008).

Transition Network: The sum of the Transition Initiatives (see Transition Network, 2010)

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Chapter 1

Introduction

“I don’t think that it’s inevitable that we’ll move towards a more resilient food system, I just see it as inevitable that climate change will get worse and I also see it as inevitable that we won’t be dependent on fossil fuels in the future, whenever this is; 20, 30, or 50 years time. But how we adapt to them, there’s a lot of different options there. It might not be a resilient system, it might be complete chaos. It might be a total breakdown of society, as a worst case scenario.”

Wilf Richards, Abundant Earth.

This is one of the first engagements with what I call a ‘local food scene’¹, where the researcher, with collaborators, is involved in the construction of alternative arrangements of food provision. Working as an activist, within the groups², allowed for the unification of theoretical and practical perspectives upon community action (action within the community) to increase resilience. Through a critical assessment of the practices, meanings, motivations, and social relations of community-led and enterprise-led food localisation³ in County Durham, the study assesses the capacities of, and barriers to, such strategies in realising their objectives. In doing so, the study combines academic aims with explicit efforts to assist emerging bottom-up attempts to strengthen the local food scene within County Durham. I begin by contextualising the scene, before illustrating how I conceptualised groups within the scene. This thesis will be of interest to local food supporters and activists as well as policy makers and local food business directors in County Durham seeking to build upon their

¹ I use the word ‘scene’ to describe the sum of all the businesses and grassroots groups.

² I use the term ‘group’, throughout, to refer to parts of the local food scene (allotment holders, DLFN and/or LF businesses). The term ‘group’ is employed in order to avoid confusion with ‘Durham Local Food Network’ for which I solely reserve the use of the word ‘Network’.

³ See glossary for distinction from ‘localism’

understandings of local food activities, and looking to form a strategy through which to further encourage the production and consumption of local food in the area.

1.1 Population and Farming Profile of North East England and County Durham

The population of County Durham has decreased by around five percent over the last thirty years, and currently stands at around 500,000 (County Durham Partnership 2008). The population is predicted to rise by two percent by 2029 (*ibid.*). County Durham's population is dispersed due to many conurbations having grown as a result of past industrial activity, and it contains 12 main towns (*ibid.*). The County's largest settlement, with 42,000 residents (*ibid.*), Durham City (*ibid.*), near to the centre of the county, is the focus of my fieldwork area.

“The Region's agriculture is dominated by livestock production with 68% of the agricultural area being under grass or rough grazing...Cereal and General Cropping farms account for 23% of commercial farms in the region” (Farm Business Survey 2009:1). The western half of the county is rural and hilly, so most of the agricultural production is of (Less Favoured Area) cattle and sheep, there are small areas of dairy production to the south, and the east is predominantly cereal production with some lowland cattle and sheep. Production of pigs, poultry and horticulture is very limited (Farm Business Survey 2009:2).

The Strategy for Regionally⁴ Produced Food and Drink in NE England (ADAS, 2006), showed that the North East had a lower share of 'regionally produced' food compared to other regions. Studying at a county level, Ricketts Hein *et al.* (2006) used indicators relating to the production and marketing of local food products to create an index of food re-localisation and ranked County Durham 47th out of 61 counties. However, more recently, Charles (2011a pers. comm.) has observed an increase in activities and projects relating to local food in County Durham over the past five years:

⁴ See glossary for distinction between 'locality/regional speciality food' and 'local food'

“New farm shops have opened⁵, 6 established Farmers Markets continue to trade successfully and a new East Durham Food & Craft Market started in 2009. Some new local food businesses have started... A new CSA project is developing in Weardale and a community growing project, “Plot to Pot” has started in Teesdale⁶... Teesdale Marketing have recently launched a project, Love Food, to support and promote local produce in the Durham Dales. The number of local schools with their own horticultural projects is also expanding and being supported via the Growing Schools Partnership based at the Esh Winning Eco-Learning Centre in Esh Winning along with other partner organisations”

1.2 Fieldwork Boundaries

By definition, any conception of ‘local’ is relative to a place, (– a place of residence for example –), so that for those living near the county boundary, County Durham does not always align with what they consider local, as I discuss in Chapter 5. Therefore, choosing the geographic area within which to study local food is problematical. The delineation - of County Durham - for the purposes of this enquiry, therefore, although not a strict demarcation, resulted from it being the expressed geographical scope of the Durham Local Food Network (DLFN), with whom I worked closely. In addition, the Network currently has a Durham City bias in terms of membership, as it was founded and has been most heavily promoted within the city, which is geographically placed towards the centre of the county. Therefore, the study zone could equally have been described as Durham City and its surrounding area.

1.3 Conceptualising County Durham’s Local Food Scene

Spiller (2008) employed the concept of a producer-consumer ‘nexus’ to explore social relations and practices at farmers markets. Whilst such direct, face-to-face transactions are perhaps amenable to a linear conceptual framework, more complex activist scenes require consideration of further aspects of producer-consumer relationships. I conceptually portray

⁵ New Close Farm Shop, Bradley Burn Shop and Café, Broom Mill Shop and café, Lowfield Farm Shop & Café, Dropswell Farm shop & Café, Plough Farm Shop

⁶<http://www.weardalecsa.org>; http://www.rotters.org/from_plot_to_pot/

County Durham's local food scene as a cluster of overlapping circles and include people elsewhere in the production and supply chain - such as suppliers of farm inputs, processors, wholesalers, and retailers - in addition to producers⁷ and consumers⁸.

The second consequence of focusing on the producer-consumer relationship is that characterising people on a capitalist producer-consumer actor basis overlooks informal, sometimes peripheral, activity in the local food scene. Graeber (2004) warns against academic tendencies to characterise behaviour only in economic terms that reduce all to production, exchange or consumption. This is consistent with observations as to the practical limitations of consumerism as a force for change:

“Although ethical consumerism clearly has an important role to play in responding to this challenge in and beyond the food chain, the private purchasing power of concerned consumers will never be enough to counter the formidable corporate and political forces that fuel unsustainable development. Until these forces are contested and contained, through the efforts of ethical consumers and ecological citizens working in concert, one can only hope that these belated efforts will not be ‘too late’”. (Morgan 2010:1865)

Hence, I introduce a broader concept of the interactions involved in the local food scene consistent with the premises of Green Economics (Scott Cato 2008) that sees material exchanges as embedded within broader social and ecological contexts. For example, this includes people who are creating closed material cycles by composting, feeding food scraps to hens or exchanging surplus allotment produce, as well as local food activists and supporters. This affirms, and builds upon, recent research which concludes that the most important distinctive feature of 'alternative' food systems is that they promote the connection between producers and consumers through food, (Kneafsey *et al* 2008), and, in this broader characterisation, between all aspects of the food production system.

⁷ The term 'producer' is used in a general sense to encompass smallholders, allotment holders, domestic growers and those who keep hens as well as farmers and so forth.

⁸ 'Local food consumers' is used to refer to those who 'eat' local food, rather than merely purchase it, to include non-bought sources of local food into the analysis.

I attempted not to typecast the groups, nor further categorise the people within them, but rather asked each questionnaire respondent whether they considered themselves to be a “supporter, consumer, activist...” – thus not assuming the composition of each group. I favour self-descriptions to highlight the agency of respondents in determining their own identity (see Fig. E1, E3 for example). Furthermore, I allow for the possibility that individuals can fulfil more than one role simultaneously, for example by acknowledging that many local food consumers are also domestic producers, and vice versa. Although I have provided ages of questionnaire respondents in Tables D2 and E2, and interviewees, where disclosed, in Appendix G, I have not analysed the socio-economic, gender, ethnic or age profiles of the groups as due to the small sample sizes, statistically significant results were unavailable. Given more time, I would like to have collected more data about the individuals in these groups.

In summary, I refer to the ‘local food scene’ as a complex network of dynamic social and ecological interactions among individuals and groups that mediate both these social interactions and their ecological correlates- a construct best conceptualised as a web of relationships. Below, I illustrate how I conceptualised the interrelations of these groups (Fig.1.1).

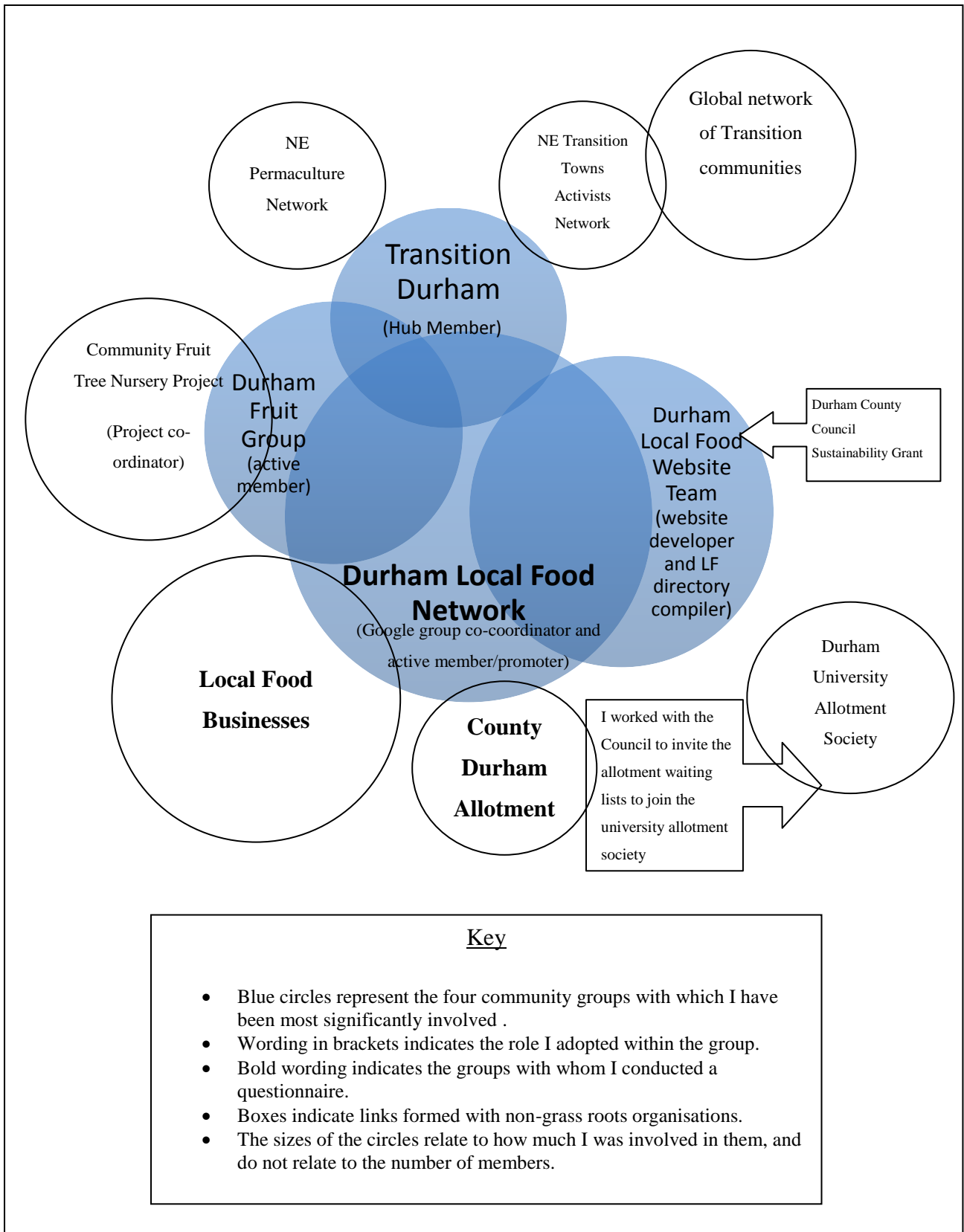


Figure. 1.1: A pictorial representation of my perception of community groups in the scene: The size of the circles indicates my degree of involvement and overlap relates to my perception of overlapping membership

1.4 The Groups in the Scene

There is a significant overlap in membership between the four central groups which could be described as community action groups (fig. 1.1). Membership of the groups is free and open to all, and members' activities are voluntary and self-organised. All the groups' members interact via email operated through mailing list providers. Group members share news about local food in County Durham by sending an email to the list. There are currently approximately 300 members of DLFN (June, 2011). Wilf Richards and I co-manage the group, adding new members.

My main collaborative involvement with the scene was with Durham Local Food (DLF) Website Team, founded in 2009. Together, we have created a website which acts as the online presence of DLFN. It aims "to stimulate and increase knowledge of and use of local food businesses and act as a portal to local food groups and resources." (Durham Local Food Website, 2011)

Members of the DLF Website Team include individuals from the following organisations, all working on a voluntary basis: Durham Rural Community Council, Climate Durham, Transition Durham, The Soil Association, Durham Organic Gardeners' Association, Durham University and Taste Durham. When I joined the team, they were in the process of applying for funding from the Big Lottery Local Food scheme, and from Durham County Council. The latter application was successful. Helping with these funding applications allowed me to gain insights into the motivations of individuals and aims of the group, and how they represented themselves to potential funders.

A condition of the One North East funding that I received was that I worked with a local business. My business collaborator, Wilf Richards, is a Director and member of Abundant Earth workers' Co-operative. Wilf was among the driving forces behind setting up the DLF website and welcomed the opportunity to get my independent perspective and dedication to drive the project forward (pers. comm.). He also believes that I have been crucial in spreading the message across the local community and establishing trusting relationships with farmers and local food producers (pers. comm.).

Beyond the edges of the circles are some extended networks. Transition Durham is part of a global, regional and local Transition network as is the North East Permaculture Network, part of the national Permaculture Association.

1.5 Research Questions

In order to understand what practices, beliefs, motivations and social relations are sustaining and constraining the growth of the local food scene, the five substantive chapters (4-8), I attempt jointly to answer the following research questions:

- What does local food mean to people interested in local food in County Durham?
- What are the existing capacities of the local food scene to help in the creation of a more resilient food system?
- What motivational and social factors are driving and supporting endeavours to localise the food system?
- What are the constraints to realising the potential capacities of groups within the scene?
- What opportunities are there for building on existing capacities of groups within the scene?

There is substantial evidence for the economic, social and environmental benefits of food system localisation. I found that Durham local food scene encompasses people actively engaged in a range of local food practices and with diverse motivations for, and interests in local food. In particular, people are keen to support the local economy through local food. Collectively they are building social-ecological resilience into the local food system. Community-led local food initiatives are found to be thriving and rapidly increasing in popularity and offer great potential in increasing local food activities in the area.

1.6 Thesis Outline

Following a literature review and methodology, chapter four examines the local food *practices and activities* of groups and individuals within the local food scene. I look at the processes throughout the food chain; from production inputs to food waste management, and ask whether such practices appear to increase the resilience of food systems.

The second substantive chapter concerns the *subjectivities of local food*. Local food is configured as a non-discrete concept that is desired, made meaningful, and negotiated through imaginative and practical engagement. Garnett (2008), for example, has suggested

that 'eat local' can only be regarded as sound advice when further qualified, in terms of a precise definition of what is meant by 'local'. Disputes over the ideal spatial, social, ideological, ethical and other attributes of local food, illustrate a degree of contention in its use. This raises a danger of cynicism amongst customers seeking authentic local food according to their terms. A study of narratives, discourses and rhetoric offers insights into the multifarious definitions of what local food is.

These explorations lead to a discussion in chapter six of how behaviours associated with local food are validated. Reported personal *motivations and identities* manifest in practices aiming to localise food constitute the appeal factors; from economic incentives to value systems and ethical frameworks. In particular I consider the extent to which rationales and narratives about climate change, declining non-renewable resource bases and related environmental changes as well as economic factors are believed to be motivating food localisation practices. I present evidence of the multiple social, political and environmental perceived benefits, which suggest that decision makers need to reconsider popular, economic conceptions of local food as a marginal, rural issue, associated with the niche marketing of commodities simply to 'add value' to the selling price.

Chapter seven looks at the social structures which allow for 'connection' among actors within the local food scene. I regard the local food scene as collective action in terms of social capital: as relations of trust and loyalty, reciprocity and exchange; norms; and connectedness.

In chapter eight I offer an assessment of constraints and opportunities, and conclude with recommendations for enabling further community-led and business-led local food endeavours in County Durham.

Chapter 2

Literature Review

This chapter contextualises the research, introducing the wider literature on food studies. I also introduce key theoretical concepts and debates including social-ecological resilience theory, New Economics Sustainable Consumption, and permaculture design principles, which frame the thesis.

2.1 Anthropology of Food

Taking a broad social sciences perspective, Atkins and Bowler's (2001) *Food in Society* offers a useful background to food studies during the 20th Century. It outlines sub-fields in which food studies have featured in recent decades including material culture, political economy, linguistics and semiotics. It also outlines theoretical influences, including functionalism (e.g. ritual and custom), structuralism (e.g. meanings and causes of food habits) and feminism.

Mintz and Du Bois' (2002) review of the anthropology of food notes landmark studies from the late nineteenth century up to 2002. They note the variety of topics within food anthropology including: agriculture and subsistence in developing countries; food in prehistory; nutritional anthropology; infant feeding and weaning; cannibalism; and substances causing major psychoactive changes. However, the seven topics they choose to highlight, as some of the major topics within the sub-discipline of food anthropology particularly since 1984, are the following: classic food ethnographies; single commodities and substances; food and social change; food insecurity; eating and ritual; eating and identities; and instructional materials. Here, I will draw upon how this thesis relates to three of these major topics. Firstly, the literature on the effects of broad 'social change' on eating habits is of particular relevance to this thesis. Whilst various studies have been made on the effect of changes in political governance and war, industrialisation, migration, biotechnology, mass production and globalisation for example, literature on localisation of food systems in a western context of climate change, resource depletion and economic recession is relatively limited. With regards to the topic of 'eating and ritual', prominence has traditionally been

given in the literature to spiritual and symbolic meanings attributed to food customs and habits, again in contrast to the meanings and motivations explored within this thesis. Finally, literature connecting ‘eating and identities’ has tended to focus on conventional groupings: gender; ethnicity; race; nationality and class. Whilst gender and age are touched upon, the emphasis here is on identities associated with a lifestyle or worldview.

The recent influences of what is often described as post-modernism, post-structuralism and the cultural turn, distinguishes this thesis from much of the older anthropological literature on food and eating. These recent themes are summarised in *Food in Society* (Atkins & Bowler 2001:8). Drawing from three of these, key premises of this thesis are:

- Food practices are socially, culturally, economically and politically embedded.
- Food-related knowledge is socially constructed.
- Food activity takes place at various scales, including at the regional, household and individual levels.
- Food consumption patterns are diverse. This is related to the rise of niche food markets as a result of the agency of consumers over social and economic structures, such as class and gender, by which they were historically more constrained.

Recent phenomena of western food systems need the attention of academic researchers who ask themselves: ‘What can be done?’. The ‘food crisis’, as it is often referred to, includes a plethora of issues in need of investigation: the rising cost of many staple foods; food scares such as salmonella and avian flu; rates of obesity and cardio-vascular disease; farmer livelihoods; the inevitable decline in extractions of phosphate and oil; the loss of biodiversity, habitats and a critical decline in fish stocks. Exacerbating these pressures, are population increases and populations profile changes, dietary shifts as well as the pressing need to reduce GHG emissions. These unprecedented problems, I hope, are the future focuses of food anthropology research.

2.2 The Environmental Impact of Food

The *UK Government Climate Change Act* (2008) commits the UK to reduce emissions from the concentrations recorded in 1990 by 60% by 2050. The WWF state that global “food production accounts for 23% of humanity’s ecological footprint” (WWF, 2008:3) and that “(F)ood is comparable to transport and domestic energy consumption in terms of its role in

personal carbon footprints” (WWF, 2008:5). The Food Climate Research Network (FCRN) has estimated that 19% of our total UK consumption-generated greenhouse gas (GHG) emissions are associated with the production, processing and retail of our food and drink (including the embedded emissions in the foods we import and excluding those from food we export) (Garnett 2008). Between 1990 and 2005, the UK food commodity consumption increased by 15%. In the same period, imports grew 51% by weight (WWF 2008:4).

In the charts below (fig. 2.1 and 2.2), energetic demands of the food chain are shown to not be directly equivalent to their GHG emissions. Farming and fishing, and pre-farm production for example, demands 5% of the total energy use in the UK food chain whereas it represents 32% of the CO₂ equivalent emissions. The latest IPCC report shows that agriculture is responsible for high proportions of nitrogen dioxide and methane; GHGs many times more potent than carbon dioxide (Barker *et al.* 2007: 29). The Department of Environment, Farming and Rural Affairs (DEFRA) suggests that this is because “most of these emissions are due to enteric fermentation in ruminating animals and from the oxidisation of nitrogen in fertilisers” (2010b:41). In the graphs (fig. 2.1 and 2.2) below, ‘net trade’ covers emissions related to the production of food imports, net of the emissions related to the production of exports, but does not include transportation (DEFRA 2010b:41).

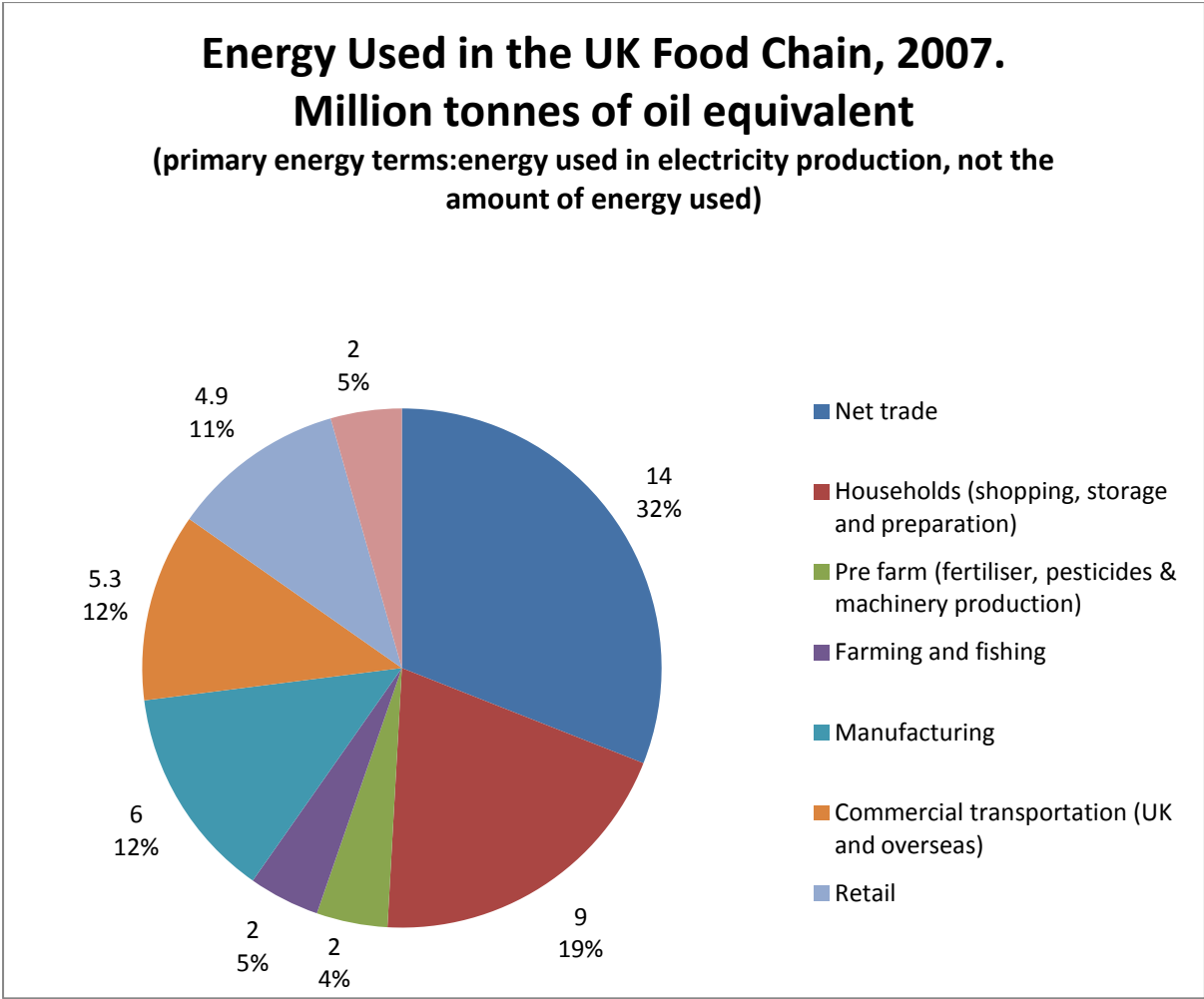


Fig: 2.1: Energy Used in the UK Food Chain, 2007, (reproduced from DEFRA 2010b:41)

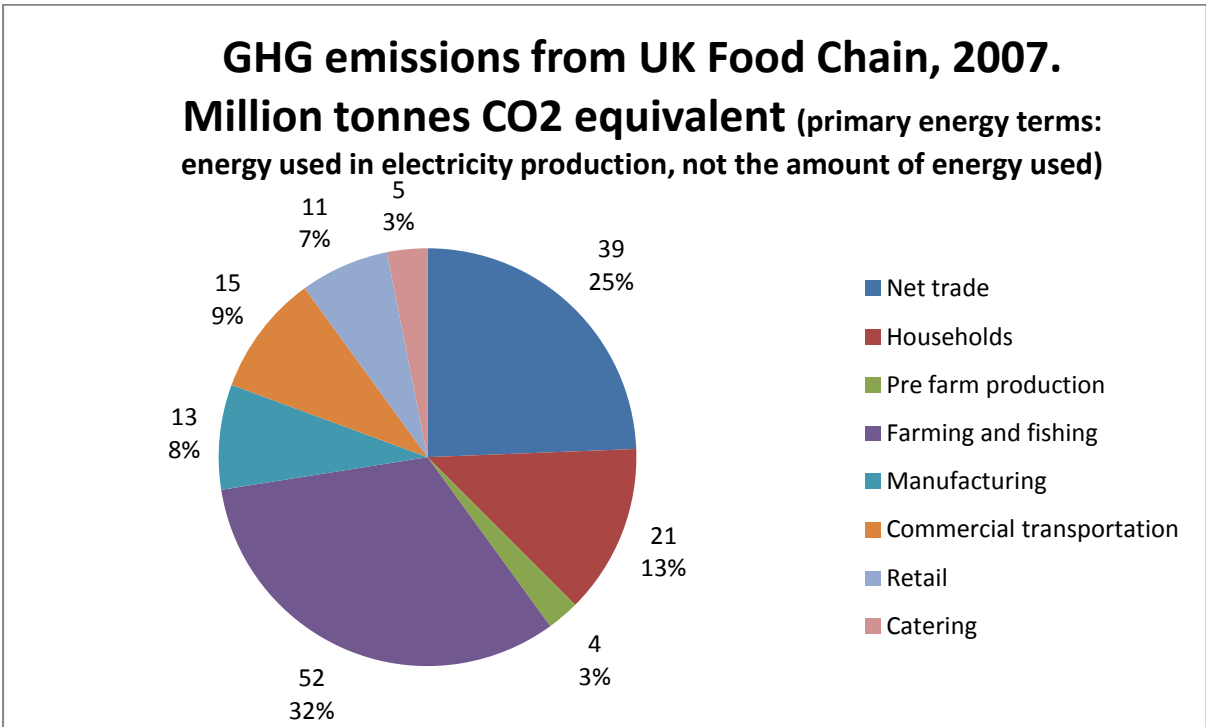


Figure 2.2: GHG Emissions from the UK Food Chain, 2007. (Reproduced from DEFRA 2010b:45)

According to the figure 2.1, the *most significant uses of energy in the UK food chain are net trade and households*, followed by manufacturing, commercial transportation and retail.

Figure 2.2 shows that *most GHG emissions of the UK food chain result from farming and fishing, net trade and households*, and are followed by commercial transportation, manufacturing and retail.

However Druckman and Jackson (2010) found that households are responsible for three quarters of UK GHG emissions when measured from a consumption perspective, and that food and catering accounts for nearly a quarter of the carbon footprint of an average UK household. However, three quarters of the emissions for meals consumed at home result from the production and distribution of food and non-alcoholic drinks. The other quarter of emissions is attributable to shopping, storage, preparation and cooking (*ibid.*).

I compare the above data to popular understandings of the main uses of energy and emissions to highlight how we might concentrate our action more on the areas of the food system which could make the biggest difference to climate change mitigation and energy constraint adaptation. What is clear, is that net trade and households are responsible for a large proportion of emissions as well as energy use, and that farming and fishing, although apparently not using a significant proportion of energy, is certainly responsible for the bulk of GHG emissions.

Evidence that ‘food miles’, are not always a relevant indicator for environmental impacts of food comes from Milà i Canals *et al.* (2007), who found that the energy needed to store European apples for consumption in Europe outside of the domestic apple harvest season, and varying energy requirements in the production stage, can cancel out any positive energy savings associated with fewer food miles.

2.3 Systems theory

The idea of a food system is a convenient means of conceptualising relationships in the food chain, both of which I configure as a linked cycle in order to embed it within ecological and cultural processes, following Scott Cato (2008). “[T]here are neither natural or pristine systems, nor social systems without nature”. Rather, Berkes posits, humanity and nature have

been co-evolving, which is now taking place at the global level and at a more rapid pace than ever before (Berkes *et al.* 2003:353). This has ties with permaculture theoretical and practical approaches which unite human systems with ecological cycles. Veteto and Lockyer (2008) argue for increased engagement with permaculture amongst ecological and environmental anthropologists seeking to address the unsustainability of human-environment interactions. Henfrey (2010) and Henfrey *et al.* (in prep.) suggest ways in which collaborative action research, such as mine, which draws on permaculture design principles, can seek to promote synergy among diverse local food agendas.

2.4 Fossil Fuels

Heinberg and Bomford, (2009:1) explain how conventional food systems rely heavily on vast amounts of fossil fuels, making it clear that in an inevitably resource-constrained future we need to increase renewable energy production, but also reduce our energy demands:

“During the past century world annual agricultural production has more than tripled. This unprecedented achievement in humanity’s quest for food security and abundance was largely made possible by the development of chemical fertilizers, pesticides, and herbicides; new hybrid crop varieties; the application of irrigation in arid regions; and the introduction of powered farm machinery... Particularly in industrialized nations, the food system has become more articulated (it has more basic components) and more centralized. Today in most countries, farmers make up a smaller proportion of the population, and they typically work larger parcels of land. They also typically sell their harvest to a distributor or processor, who then sells packaged food products to a wholesaler, who in turn sells these products to chains of supermarkets. The ultimate consumer of the food is thus several steps removed from the producer, and food systems in most nations or regions have become dominated by a few giant multinational seed companies, agricultural chemicals corporations, and farm machinery manufacturers, as well as food wholesalers, distributors, and supermarket chains. In the U.S., the process of getting food from the farm to the plate uses over four times as much energy as farming”

This thesis explores peoples’ understandings of both these energy issues (Chapter 6), and the ways in which consumers feels distanced from the source of their food (Chapter 5).

2.5 Peak Oil⁹

The UK Energy Research Centre (Sorrell *et al.* 2009) have comprehensively assessed the evidence to support the proposition for a peak in global oil production, before 2030, followed by terminal decline in production, and hence the end to an age of cheap oil, as the result of physical depletion of the resource: “Abundant supplies of cheap liquid fuels form the foundation of modern industrial economies and at present the vast majority of these fuels are obtained from ‘conventional’ oil.” (*ibid.*:v) According to them, many commentators believe the peak in oil production could result in “substantial economic dislocation, with energy sources unable to fill the gap on the timescale required.” (*ibid.*:v) Whilst others argue that liquid fuel production will be able to meet demand “well into the 21st century, as rising oil prices stimulate exploration and discovery, the enhanced recovery of conventional oil and the development of non-conventional resources such as oil sands” (*ibid.*:v). Despite the debate in the scientific community and at the grassroots level such as the Transition Network, they note that most governments exhibit little concern about oil depletion and furthermore, several oil companies have been publically dismissive. The report concluded, given the uncertainty levels of global supply forecasts, that the peak is estimated to lie between 2009 and 2031 (*ibid.* 170). Froggatt and Lahn (2010:38) highlight the implications for business: “Traditional fossil fuel resources face serious supply constraints and an oil supply crunch is likely in the short-to-medium term with profound consequences for the way in which business functions today.” They call for businesses urgently to “reassess global supply chains and just-in-time models and increase the resilience of their logistics against energy supply disruptions”.(*ibid.*)

In *Peak Everything* Heinberg (2007) describes the changes we will have to make to adapt to declines in extractions of oil, coal and gas and offers ideas for making the transition from the Age of Excess to the Era of Modesty. The current oil crisis reflects a permanent end to cheap energy that our food systems will have to adapt to, ultimately by using less energy.

“The current intensive, industrial model based on high inputs of fossil fuel derived inputs, global sourcing and centralised distribution is neither sustainable nor resilient against future shocks. Over the next 20 years we must make

⁹ See glossary

fundamental changes to the way we farm, process, distribute, prepare and eat our food. Global food shortages will be inevitable unless we act now to change our food and farming systems.” (Soil Association 2009a:2)

2.6 The Food Economy

In the UK “the value of imports in 2008 was £31.6 billion compared to £13.2 billion for exports, giving a trade gap of £18.4 billion...Since 1995 the UK trade gap in food, feed and drink has more than doubled” (DEFRA 2010b:32). In 2008, 52% of food consumed in the UK originated from Britain, based on the farm-gate value of unprocessed food (DEFRA 2010b:31). A statistical profile of the food and drink sector in the North East, using the latest data available at the time, presented the following data indicating the flow of food products out of the region:

“The total North East production of food and drink products in 2002 amounted to £1.6bn, with 12% being supplied to the North East market and the remaining £1.3bn of production being exported from the region, with 93% of the exports going to other UK markets... Over 90% of the production in grain milling and starch and the beverage industries are exported from the region, while all other sectors, bar the animal feeds industries, export over three-quarters of their regional production...The North East sector supplies only one-fifth of the regional market, while 88% of the regional production is exported. Two-thirds of the imports are sourced from other UK regions, while over 93% of the export is destined for UK markets.” (Carling and Jackson 2008:27-28)

These statistics not only indicate large food miles, but may also indicate that money is being lost from the region. Northumberland County Council used the New Economics Foundation’s (NEF) Local Multiplier 3 (LM3) methodology to track the value of its local spending (NEF 2005). The study found that every pound spent with a local supplier is worth £1.76 to the local economy, whereas a pound spent with a supplier is worth only 36 pence if it is spent out of the area.

2.7 Green Economics

Following the works of E.F. Schumacher, William Morris, Richard Douthwaite and Manfred Max-Neef, in *Green Economics*, Scott Cato (2008) criticises ideologies of neo-classical economics for its socially and ecologically destructive outcomes, and suggests that economies are social structures that should respond to environmental and social needs, including physical, psychological and spiritual needs. Following the humans-in-ecosystem approach, Scott Cato (2008) posits that society and economy should be conceived of as embedded within the ecosystem, with social justice at its core. The discipline of economics then becomes a subset of ecology rather than the other way round, so that environmental impacts are not considered as externalities but are fundamental to economical phenomena. Green economics, Scott Cato suggests, is distinct from dominant economics as it has emerged from the bottom-up so that it is based on needs and practices rather than abstract theories. She calls for a major objective, departure from a fixation on growth, materiality and quantity to one aiming to for ‘steady-state economy’ improve quality of life. She asserts that “a green economy will be a more locally based economy” (2008:14). The green economics approach influenced my choice to include non-market actors in the research, my respect for positive change regardless of scale, as well as influencing my personal belief that localisation of food systems is of powerful tool for social and ecological benefit.

2.8 New Economics Sustainable Consumption

Tim Jackson (2009) argues that there is a fundamental incompatibility between indefinite economic growth and a finite resource base. In *Prosperity without Growth*, Jackson (2009: 102) argues for finding a way through the institutional and social constraints that ‘lock’ us into a failing system:

We need to identify opportunities for change within society – changes in values, changes in lifestyles, changes in social structure – that will free us from the damaging social logic of consumerism...[and] get ourselves ‘unhooked’ from growth...and find instead a lasting prosperity – the potential to flourish, within ecological and social limits.”

This ‘flourishing’ is measured by quality of life and wellbeing rather than material consumption and growth, and therefore requires the mediation of consumption patterns to ‘downscale’ (Jackson 2009).

Seyfang (2009) categorises three major theoretical approaches to consumer motivation by relating the context of decision making from cognitive, to social and psychological, to habitual, and shows how these relate to the tools for sustainable consumption: from individual cognitive information processing on the basis of rational utility maximisation (e.g. tax incentives), to social and psychological levels where we seek to meet our needs and desires (e.g. greener products as conferring status advantage), to a wider context constrained by socio-technical infrastructures of provision (e.g. habit of using alternative food systems) (Seyfang 2009:8). Seyfang argues that the analysis of “collective decision-making and the *creation and maintenance* of contextual societal institutions, norms and infrastructure which constrains decision-making” need to be understood in addition to individual motivation (Seyfang 2009:17). This inspired me to include Chapter 7: *Social Relations Sustaining the Local Food Scene*, to compliment Chapter 6 on motivations. I consider each element of Seyfang’s New Economics vision of sustainable consumption in relation to County Durham’s local food scene to assess whether individuals and groups are enabled to localise their consumption patterns, reduce ecological footprints, build communities, work towards collective action and create new socio-economic institutions (Seyfang 2006).

2.9 Grassroots Action

Seyfang (2009) explains how responsibility taken for environmental governance is shifting from centralised institutions to new sets of actors, at a range of scales.

In *Food Wars*, (2004:5) Lang and Heasman argue that the food company epithet of being ‘consumer-led’, which attempts to shift the responsibility of food choices to the “intelligent food consumer”, is superficial; and I suggest it is irresponsible. However they go on to argue that the scale of the crisis in food and health is beyond the scope of individuals and call for radical policy interventions which holistically combine concerns for environmental sustainability, food security, social justice, profitability and human health. Whilst I agree that new conceptual frameworks or “paradigms” and policies are indeed needed to supersede the dominant industrial-productionist model of food and agriculture, a focus on policy makers,

businesses, the rich and the powerful needs to be understood in the context of the scene, of everyday people and their everyday actions as well as marginal and grass-roots activity.

Berkes and Folke (in Gunderson and Holling, 2002) advocate combining local and traditional knowledge systems with complex systems science, for local management of resource-use in a way that enhances the adaptive capacity for building social-ecological resilience.

Community-based action enables responses that are locally grounded, can address local needs, and takes into account local knowledge, practices and values (Rowson *et al.* 2010).

The Fife Diet proved that ‘grassroots works’, in their analysis of carbon ‘foodprints’ of members. The study showed that through following the Fife Diet, surveyed members had reduced their food related greenhouse gas emissions by 40-50% below the UK average (FCRN 2011). Activists have described local food as both a “Trojan horse” (Clear, pers. comm. 2010) - a tool for community engagement with place and environment -, and as an attractive “gateway” to the wider debate on sustainable food systems (Fife Diet, interviewed by FCRN 2011).

2.10 Resilience

“Widespread human alteration of ecological interactions and biogeochemical processes, from local to global levels, result in modified ecological resilience, increased likelihood of surprises, and unpredictable and enhanced variability in essential resource flows. The situation requires a shift to a view of the world as consisting of complex systems.”(Berkes *et al.* 2003:382)

Resilience offers a perspective for analyses of food systems as social-ecological phenomena. Berkes *et al.* (2003) reason social-ecological systems are complex and dynamic and thus their development requires a model which incorporates a context of change and crisis, and processes of collapse and reorganisation - contexts which conventional environmental management systems fail to take into account. Drawing on the work of Walker *et al.* (2004) and Folke *et al.* (2010), I suggest that there are two key prerequisites for social-ecological resilience: *adaptability*, understood as the capacity to learn from and adjust to internal and external change, which crucially requires empowerment and agency for social-economic system management and *transformability* as the capacity to create a fundamentally new system. I draw on both of these aspects of resilience, to analyse the capacities for resilience in

light of peak oil, climate change and economic contraction. Although I look at responses to these three particular contextual themes, I acknowledge that a more generalised resilience to all kinds of shocks, as advocated by Folke *et al.* (2010) may be more useful if the system is to deal with novel shocks.

Chapter 3

Methodology

3.1 Overview of Methods and Chapter outline

In addition to the familiar producer-consumer nexus, I included non-market actors in the study by distributing questionnaires to people in the following three groups (fig. 3.1):

- Allotment holders and people on Council allotment waiting lists (profile of respondents: Appendix D)
- A community action group of local food enthusiasts called Durham Local Food Network (DLFN) (profile of respondents: Appendix E)
- Local food businesses (including limited companies, social enterprises, cooperatives and community interest companies, for example) (profile of respondents: Appendix F)

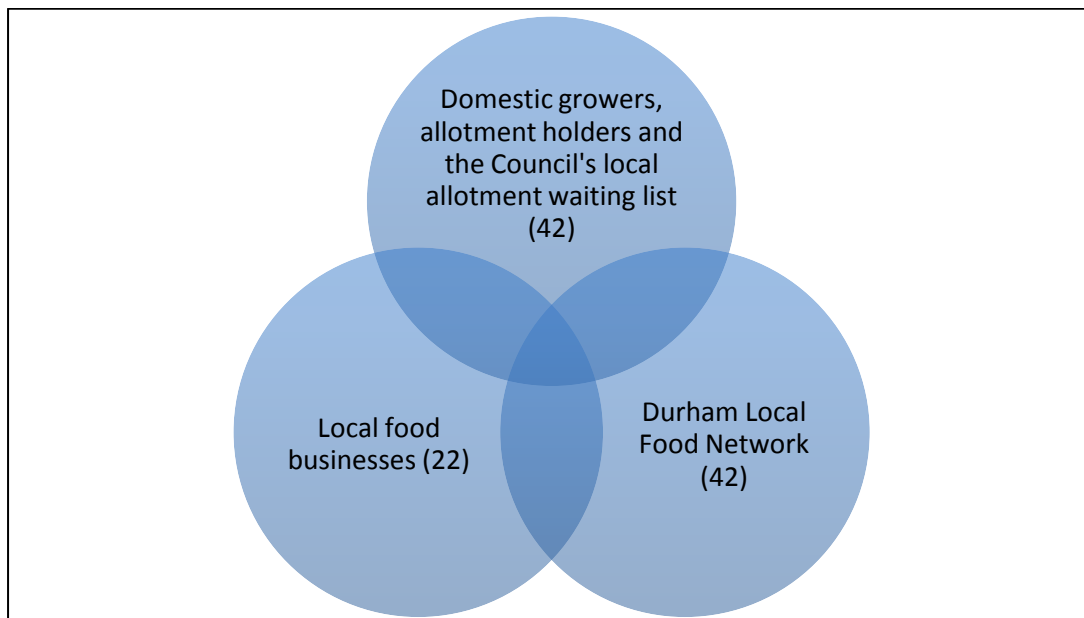


Figure 3.1:The three main collaborator groups of the research and the number of collaborators from each group who returned questionnaires

In addition, six of the local food business questionnaire respondents agreed to be interviewed to act as case studies (interviewee profiles: Appendix G). One of these interviews was with Wilf Richards of Abundant Earth, a smallholding two miles from Durham, from which they operate a vegetable bag scheme supplying customers in the city. I regularly volunteered at Abundant Earth and wrote fieldnotes on my experiences and observations. Wilf Richards also became my teacher on a 12 day permaculture design course. I employed a methodology based on participatory action research, in which overlap between the practical aims of DLFN and the DLF website team and the aims of the research allowed me to combine my role as a researcher with roles within various groups (see fig. 1.1). For example, as part of my collaboration with DLF website team I compiled a directory of local food businesses and contributed to creating the ‘Durham Local Food’ website and I ran promotional market stalls with DLFN.

I begin this chapter by outlining the academic context of the research, emphasising the distinctive insights an anthropological approach offers to the field of investigation. Then, in order to set out the philosophical context, I explore some of the ethical, epistemological and ontological dilemmas I encountered.

Following this, I give details of the specific methods employed: participant observation at Abundant Earth, questionnaires with the three groups mentioned above, and interviews with local food businesses. The participatory nature of this research means that full descriptions of methods must necessarily include some element of auto-ethnography: I describe how I became active in the DLFN and involved within other community groups and individuals associating themselves with the scene. After this I examine more fully how the research was influenced by action and co-inquiry approaches and how successful these were.

3.2 Research Philosophies

3.2.1 What Can We Know, and How Can We Know It?

This study is based on a phenomenological philosophical tradition, the foundations of which are commonly attributed to Husserl (Cf. Stanford Encyclopedia of Philosophy, for example). The phenomenological premise is that realities are usefully conceived of as consisting of *phenomena, in this case ‘local food’, as perceived by humans*, rather than as an *a priori* reality, independent of human consciousness. The principles of co-inquiry action research reflect these philosophical approaches, underpinned by the phenomenological premise that

subjective knowledges, constructs and rhetoric are valuable in understanding how humans interact in the world.

This leads to the epistemological premise that I was *active in the dialectical construction* of knowledge with my collaborators and that *immersion* in the scene was a valuable way to study it. Therefore this thesis presents *my understandings and responses to people's rhetorics and realities* of local food, which I have used to build a picture of the local food scene. Via inductive logic, I construct reasonably *generalised conclusions* supported by *specific findings from experience*.

3.2.2 The Nature of Anthropological Inquiry

By using collaborative methods, described below, I aim to reflect the synergies and contestation amongst the multiple and intersecting discourses of local food. I argue that in conducting longitudinal, participatory action-based research, engaging with and becoming an activist, I gained a unique understanding of the local food scene.

Environmental Anthropology is concerned with how and why humans understand, dwell in, interact with, relate to, and are impacted by their environments in different or similar ways. By shedding light onto the social and cultural processes associated with endeavours to localise our food system, I denaturalise local food, and reveal the constructions behind its diverse meanings and narratives.

3.2.3 Collaborative Ethnography

My analysis draws from my ethnographic engagement with multiple groups and individuals. We all construct an understanding of the world around us, and have our own worldviews, beliefs and motivations which inform our perception of the world and our place in it. Ethnography has been defined as the descriptive writing of societies based on the analysis of fieldwork (Wyatt Wood 1997). The term can also refer to its practical application as an entry for dialogue with collaborators and stakeholders (Anderson & Berglund 2003:15). Here I mean ethnography in the methodological sense: that I conducted longitudinal fieldwork in one area to understand the emic understandings of many people by taking part in their activities. Whilst much of the analysis consists of material drawn from questionnaires and interviews, my first-hand engagement in the field influenced the research questions as well as the questions within the questionnaires and interviewees.

Ethnography critics claim that phenomena are best studied in the abstract; distinct and separate from social and cultural contexts. However, as Ingold reminds us, ethnography can reveal legitimisations of claims to power: “privileging of the global ontology of detachment over the local ontology of engagement...to legitimate the disempowerment of local people in the management of their environments” (2000:216). By offering a grounded indication of the plural realities of people’s everyday lives, critical ethnographic enquiries question the dominant discourses guiding policy decisions as these can extend unfounded axiomatic, ‘common sense’ truths (Arce & Long 2000). This study challenges these assumptions by illustrating alternative beliefs and practices.

Although this thesis champions local food I also recognise the challenges it presents: I am careful not to romanticise grassroots action, or represent local food as a panacea. Localised food systems, I argue, are an important part of any alternative, especially given that the UK government’s Sustainable Development Commission has highlighted a failure to achieve systemic change towards a sustainable food system (Lang, Dobb & Reddy 2011) They also report that current food policy is characterised by budget cuts and a lack of real momentum in delivering the Government’s national strategy, *Food 2030* (DEFRA 2010a), for a resilient and low-carbon food system. Each of the UK’s three main parties has considerably different commitments to changing the food system (Barling 2010). Public health officials have called for reduced levels of livestock production and consumption of animal products, and for coordinated cross-sector action involving agriculture, nutrition, public health and climate change, stressing the multiple benefits that could arise from policies that promote universal access to affordable, healthy, low-emission diets (Friel *et al.* 2009).

Scott (1998) highlights the chronic 'structural dysfunctionality' of policies that ignore local conditions and impose simplifications and universalisms on social and ecological systems that undermine their inherent adaptability. Scott uses the concept of 'metis', described as crafty intelligence, to describe how local cultural knowledge provides better grounding for the dynamics of change to be more adequately understood and for interventions to be more organic, and hence effective.

While national and international laws, regulations and treaties affect food systems in powerful ways, as individuals, each of us also exerts an influence. Each time we make a visit to a supermarket or sow a seed, our actions have consequences right along the food chain. By working with grassroots initiatives actively and consciously shaping their food systems I

show how people are exercising agency over their food and production choices and are not totally at the mercy of institutional structures, policies, and authorities.

3.2.4 Plurality of Knowledge Production

Pretty advocates the use of participatory approaches to sustainable agriculture, considering the complexity and contestation of the term ‘sustainability’ which has been variously configured to imply “*persistence and the capacity of something to continue for a long time...to the ability to bounce back after unexpected difficulties...Economies are sometimes said to be sustainable if economic activities do not harm the natural resource base; to others, sustainability simply implies continuing to grow at the same rate*” (Pretty 1995: 1248). Pretty suggests that participatory methods and philosophy could shed light on multiple understandings: “*Where the problem situation is well defined, system uncertainties are low, and decision stakes are low, then positivist and reductionist science will work well. But where the problems are poorly defined and there are great uncertainties potentially involving many actors and interests, then the methodology will have to comprise these alternative methods of learning*” (1995: 1258). In reference to social-ecological resilience, Crane (2010) suggests we should complement the biophysical and socioeconomic considerations with emic understandings that illustrate the range and richness of perspectives and adaptive pathways found in resilient cultural systems.

The meanings of ‘local food’ are highly contested. I employ constructivist epistemologies in an attempt to represent all those contestations. The Cartesian paradigm “posits that there exists an objective external reality driven by immutable laws”, that science, and the detached investigator seeks to be able to “discover, predict and control natural phenomena” (Pretty 1995: 1249). Pretty argues that in the context of ‘development’ such beliefs have resulted in inappropriate farming technologies irrespective of local context, that are inappropriate when problems (such as ‘sustainable’ agriculture) are open to interpretation, and uncertainties of conditions are high, varying through time and space. He suggests that participatory methods and principles are more likely to produce effective results, by shedding light on multiple understandings that are often place-specific, and proposes several principles which differentiate ‘alternative methodologies’ breaking from positivist, Cartesian science. These, he suggests, “have important implications for how we go about finding out about the world, generating information and taking action” (Pretty 1995: 1250).

Following Pretty, I have found the following useful for outlining the epistemological principles behind the participatory nature of my study. I suggest that similarly to the concept of sustainability, ‘local food’ is problematic in that the problems are fuzzy, systems are dynamic, and concepts are contested. “The question of defining what we are trying to achieve is part of the problem, as each individual has different values. Sustainable agriculture is, therefore, not so much a specific farming strategy as it is an approach to learning about the world” (Pretty 1995: 1250.). Second, he advocates wide involvement of different people so that multiple perspectives enter the frame – an aim of the participatory approach. Methodologies need to take into account that problems are always contested, as knowledge and understandings are socially constructed, and that no one of the voices is necessarily correct. Thirdly he suggests that there can be no absolute certainty about an answer as systems are inherently dynamic and new interpretations will be made.

Certain characteristics of some of the groups I was working with easily allowed for the inclusion of multiple voices. DLFN has an open, non-hierarchical organisational structure. During meetings, inclusive facilitation ensures everyone is heard, and decisions made on the basis of consensus. Outside meetings, online technologies supported these practices. Several of the groups I collaborated with operate through Google Group email lists, to which all members can post messages without moderation.

3.2.5 Enskillment

The study prioritises contextual and practical knowledge requiring active engagement with the scene. Appendix C describes my development as a researcher. My enskillment can be likened to a craft or *technê* (Pálsson 1994) - breaking from the tradition of analytic and theoretical ways of knowing – known as *epistêmê*. Pálsson advocates master-apprentice relations and attending to the wider community in an alternative theory of practice which recognises the relationship between knowledge and practice and experience and attentiveness. He also argues how personal enskillment gained through active engagement with everyday activity is conducive to processes of knowledge co-creation. I practised and embedded my learning, for instance through the permaculture course I attended, as well as in assisting with DLFN coordination, in volunteering in the vegetable garden at Abundant Earth and in the creation of the DLF website. A challenge of such involvements were the time commitments required to contribute fully to local food activism, such as adding content to the

DLF website - an activity which was not necessarily an empirical data yielding exercise but which still informed my understandings.

3.2.6 Ethical Reflections

Upon reflecting on the possible implications of my involvement in the local food scene, particularly in influencing local food business practices, I began to question the anthropocentric bias inherent in some ethical guidelines for the social sciences such as the Association of Social Anthropologists of the UK and the Commonwealth's *Ethical Guidelines* (1999). "The Society for Applied Anthropology has maintained that the first obligation is to those whom we study" (Bernard 2006: 75). Specifically, I found the pursuit of minimising adverse effects on humans problematical, because applied indiscriminately it could serve to privilege (highly subjective) human comfort above the needs of the planet.

The wider concern that I had for this ethic was due how it could be viewed to be analogous to the root cause of this so-called agro-food 'crisis'; privileging human comfort, or at least the agendas of the powerful, above Earth's capacities. Behavioural change is often about stepping out of one's comfort zone. The interview process aimed to encourage interviewees to reflect on their current position. For instance, I was explicit about the vulnerability of businesses reliant upon fossil fuels, and possible future scenarios under climate change (Holmgren 2009). I contend that any discomfort or unease I may have provoked by this, or similar discomfiture during the interview process, was justified given the pressing need for local food businesses to be considering these scenarios in order provoke behavioural change.

Furthermore, I aimed to make a significant *positive* contribution to the groups I was involved with, and to the wider scene or sector. I felt that this was not only a desirable outcome of the research, but that it is a duty of the research community, whenever possible, to maximise benefits beyond academia. Through the study of grassroots endeavours, I join the research tradition striving to break the monopoly on who holds knowledge and for whom social research should be undertaken. In addition to recognising consumer sovereignty, I argue that people are exerting power over the food system in other important capacities, for example, as businesses personnel, growers, activists, supporters and promoters.

3.2.7 Qualitative and Quantitative Data

My original research plan was to collect data on tonnes of carbon, or similar values associated with the embodied energy of food, particularly that associated with distribution of local food. New technologies are being developed to allow farmers to measure the carbon emissions of their practices, including *The Cool Farm Tool*¹⁰ and the *Calm Calculator*¹¹, although collaborators did not mention these. In fact, I found auditing of energy usage to be uncommon amongst local food businesses. Interestingly, quantitative measurement of environmental impact was not a priority for most businesses- some explained that they did not feel they needed to prove their carbon footprint was quantitatively low if they knew that their practices were environmentally friendly - hence I dropped this line of enquiry.

3.3 The Research Process

3.3.1 Volunteering at Abundant Earth

My fieldwork began on 1st October 2009, weeding the beetroot bed at Abundant Earth with Wilf Richards, my business collaborator for the research. Wilf had invited me to pack vegetable bags for his customers and to help out in the vegetable garden. Wilf is one of the four directors of the workers co-operative and Community Supported Agriculture (CSA¹²) business, Abundant Earth, which cultivates and sells organic food in a vegetable bag scheme, as well as participating in wider community development work such as running courses and events around local food and sustainable agriculture. Abundant Earth is a local exponent of low-energy food production and initially it was the site of much of my fieldwork. It was where I first went to experience how low energy agriculture could be and to learn about the ethics and principles behind such farming practices.

Wilf often worked alongside me and other volunteers on the land and we would catch up on the latest news from the DLFN and other groups in which we are both involved. He often advised me on how I could develop my research. With his experience in community work

¹⁰ www.growingforthefuture.com

¹¹ www.calm.cla.org.uk

¹² See glossary

and as a social activist, I regarded Wilf as a key informant who helped me make the research ‘action’ research, influenced by his strong vision of a resilient local food system.

I recorded my thoughts and findings of the production and distribution techniques in a field diary at the end of each day I volunteered at Abundant Earth. Taking notes as I went along was not really conducive to gardening gloves, mud and trying to write on paper in all weather. Besides, I wanted to avoid people from feeling I was studying them, although they knew that I was there for research purposes as a ‘participant observer’; constantly to be noting down things in a notebook may have altered their behaviour. I did not formulaically analyse the field diary as it was kept more for my own reflections and personal responses to experiences, than for collecting data.

3.3.2 Scoping

Basing the study on Vayda’s (1983) progressive contextualisation, by not predetermining a focus, the research direction was able to develop organically, as I followed advice, leads, and the resources of the groups (C.f. Pinkerton & Hopkins 2009:178). For instance, the decision to design a questionnaire for allotment holders came fairly late, after finding that many people were growing their own food and realising that these behaviours have the potential to contribute to localising our diets. Originally, I planned for the research to focus on local food producers, but as producers are interlinked with all the other parts of the food system, I widened the scope of the research.

3.3.3 Scoping for the Local Food Directory of the Local Food Website

In collaboration with DLF Website Team I started to compile a directory of local food businesses, which also served to build a database of businesses for me to approach to participate in my research. Finding local food businesses was a far greater challenge than I had anticipated as no comprehensive local food directory existed, and the local food sector in County Durham had an elusive online presence. This made grassroots knowledge of local food and recommendation through social networks the only realistic starting point.

To begin with, the database I compiled grew from the existing information resources of the DLFN, a file of promotional materials and through word of mouth. However, the contact details that I found were also often out of date. Additionally, many businesses, especially

producers, seemed to not publicise their contact details. National online directories were also out of date. The website team put this down to the lack of local teams, like ours, who were on the ground so knew about changes and who were committed to updating them.

I began touring farm shops, farmers markets, agricultural shows, using independent retailers, building a rapport with local food business people and enquiring about where they sourced their food from. Together with reading local magazines and publications, browsing the local newspaper, listening to programmes such as Farming Today and the Food Programme on BBC Radio 4 I gathered more contact details. Soon I was snowballing information, as I had built the capacity for coincidental leads and personal experiences that put me in the know about new businesses and the zeitgeist of the scene.

3.3.4 Contacting Businesses to Join the Local Food Directory

The database of local food businesses I had compiled by summer 2010 included approximately 100 businesses. I wrote to all of those for whom I had an email or postal address, inviting them to submit their entry form to feature in the website directory. By asking businesses to submit their details themselves the website team ensured that we uploaded the correct details, created a sense of joint-ownership, spread the responsibility of keeping the entries up to date, and ensured a way to include only the businesses that satisfied criteria set by the website team.

3.3.5 Contacting Businesses to Take Part in Questionnaires and Interviews

I also invited these 100 businesses to take part in the ‘two-part’ study. The first part of the study was a questionnaire, mainly to compile information about how local food is being produced, processed and distributed to local markets, along with more subjective information about meanings, motivations and aspirations for local food. The second part of the study was an optional follow-up interview, which addressed these questions in greater depth.

The invitation to take part in the study was sent along with the project information sheet (Appendix A) which included information on the use of data and confidentiality. Introducing myself as both a research student at Durham University, as well as working in collaboration with DLFN, I felt gave me credibility both academically and within a community setting. I acknowledged in the invitation how I believed that my research could “support local food

producers and the interests of consumers towards strengthening County Durham's local food sector".

Attempting to avoid a priori characterisation of businesses based on my own assumptions, I headed emails "calling all local food businesses" and included the question "Do you consider your business to be a local food business?" in the questionnaire. All of the respondents answered yes, which may suggest demand characteristics – the tendency of respondents to tell the researcher what they think they want to hear - or could have been due to sampling bias, if those who would have answered "no", chose to not participate.

Rather than selecting case studies for their novel arrangements of production-consumption, I opted for a self-selected sample, interviewing all who volunteered to take part. Kneafsey *et al.* (2008) used a selection framework for their project database which consisted of four qualities of the business: consumer-producer-food connection; non-conventional supply/distribution channels (i.e. non industrial, non corporate); social embeddedness (trust, community, local ownership) and quality in relation to place specific traditions/environmental features (Kneafsey *et al.* 2008:179). However, the small sample size in the present study makes use of such a framework impracticable. Coincidentally the six business personnel I interviewed do represent a good range of business types, sizes, business models and products: two producer-processor-retailers (dairy and farm shop), a producer-community initiative (education centre), a wholesale buyer-processor-caterer (caterer), and two producer-retailers (lamb production smallholding and CSA veg. box scheme).

3.3.6 Questionnaire Design

The Institute of Cultural Affairs' Focused Conversation Model is a technique used by facilitators to structure conversation, to elicit responses which move from the surface issues, to deeper levels of reflection, in order to arrive at decisions (Stanfield 2000). Otherwise known as the O-R-I-D facilitation technique, the approach involves ordering questions so that objective questions are first, then reflexive, then interpretive, and finally decisional. Wilf introduced me to the technique, and I followed the technique as a guide to design three different questionnaires using Survey Monkey.

I sent the first questionnaire to approximately 100 local food businesses, of which 22 responded. Another was sent to approximately 300 allotment holders, prospective allotment holders and people who grow-their-own¹³ from which 42 were returned and the questionnaire sent to the approximately 200 DLFN members was also completed by 42 respondents. As each questionnaire was over ten pages long, for succinctness, I summarise each questionnaire here.

The allotment questionnaire had 29 questions. Objective questions included: “Do you have an allotment plot?”, “Are you on an allotment waiting list?”, “How long have you been on the waiting list?”, “Why do you want an allotment?”, “How long have you had your current allotment for?”, and “How often do you go to your allotment?”. Moving onto a more reflexive level, for example, I asked: “How green is your lifestyle in general?”, “What do you do with excess produce that you grow?”, “How much of your diet is food that you have grown yourself?”, “What do you enjoy about having an allotment?”, “What do you think the term local food should refer to?”, “What other qualities do you think makes food ‘local food’?”. Further questions included: “What motivates you to eat local food?” and “Are you keen to support local food in Durham?”

The DLFN questionnaire included 23 questions. Objective questions included: “Which of the following user groups do you fit into? e.g. local food consumer, local food enthusiast, local food activist...”, “Which of the following would you describe yourself as? e.g. vegetarian, a keen cook, foodie, environmentalist, ethical consumer...”. The next section of questions included: “What do you think the term ‘local food’ should refer to?” “Where do you buy most of your food from?” , “Does your household produce food for personal consumption?”, “How much of the food that you eat is local food?”. The next questions were: We would like to know what motivates you to eat local food. How important do you think the following reasons are to you? Score each factor on a scale of 1-4”, “Why do you think some people DON’T eat local food?”. Then looking ahead: “How do you think consumer demand for local food will change in the future?”, “What might be the barriers to businesses wanting to produce/sell more local food in County Durham in the future?”, “How do you think the local food sector will grow to meet increased demand in County Durham?”. Then there was a

¹³ For succinctness from now on I refer to this questionnaire simply as the ‘allotment holder’s questionnaire’

section about DLFN: “To what extent are you involved in Durham Local Food Network?”, “How did you first hear about DLFN?”. Next I explained that the Network is made up of over 200 members and that “these include producers, processors, retailers and consumers of local food. Together we support and promote local food in County Durham. We share local food news and let each other know about talks, courses, markets, films, food festivals and other local events”. Then I asked “What do you get from being a member?”, “What prevents you from being more involved in DLFN?”, “How do you think DLFN could improve?”. Then I explained that we had recently received funding from Durham County Council to make a website about local food, explaining that the aims were to “stimulate and increase knowledge of and use of local food businesses and asked which sections of the website they might you use. I finished by saying: “If you have any further comments about DLFN, please write them below. If you would like to be more involved in the Network, how about posting something about local food to the group? For example, perhaps you know of a local food event like Apple Day and Durham Farmers’ Market on October 21st. Spread the word, by letting the Network know.”

The Businesses questionnaire was 41 questions in total, although how many each respondent answered varied depending whether they produced, processed or retailed food as I used a skip-logic function. The questionnaire started with objective questions, such as “What is the name of you business?”, “Does the owner of the business live within 50 miles of the business?”, “How many customers/clients do you have?”, “How many people does the business employ? Next, I asked “Do you consider your business to be a ‘local food’ business at all?”, “Are many of the business’ products eaten by local people”. Then I asked them about what “the term local food should primarily refer to” and what qualities ‘local food’ should have. This was followed by three sections that were asked, depending on how they answered whether they were a producer, processor and retailer, using the skip logic function. I asked the producers about scale of production, where they get their inputs from and the proportion of inputs they source from within 50 miles of their business. I also asked the producers about the products they grow and rear, and where these are consumed. I asked the processors what they process, where they source their ingredients from, and to give examples of the types of foods they get locally, nationally and from abroad, as well as what proportions of their ingredients they source locally. I asked the business retailers and suppliers, what they sell that is, or contains ingredients which have been, produced locally, in the UK and abroad, and what proportion of their products they source locally. On a more reflexive level, I asked them

to rate the importance they would expect their customers to give to a list of twenty motivations to eat local food and what their personal motivations are with regards to working with local food. I also asked about how ethical or green their production practices are and finally, whether demand for their product has increased over the last ten years, and whether they thought the local food sector would grow.

The data sets for the questionnaires were not mutually exclusive so there was the potential for a small number of overlapping responses to some of the questions which were in each questionnaire. I invited three groups to fill in the allotment questionnaire: County Council's allotment waiting list members and St Margaret's allotment holders, and I invited domestic food growers from DLFN. The DLFN questionnaire was sent to DLFN members only.

The questionnaire method was easy to administer and analyse. Questionnaires are a conventional form of data collection familiar to many people, easily distributed via email networks, and which allow for information to be given to respondents. In order to ensure data protection and reassure businesses in particular that the data they submitted was secure, I opted for a Survey Monkey account that came with extended features including a Secure Sockets Layer (SSL) which encrypts responses.

I tried to overcome the limitations inherent in this method by using a mixture of open and closed questions, always offering an 'other' or 'comments' option. By using the 'skip-logic' function, I was able to include some additional questions which appeared depending upon certain replies. There are several drawbacks to questionnaires. For example, I possibly led questionnaire responses through providing specific examples in one of the questions. The question asked, other than distance, what other qualities makes food 'local food'. In the allotment holder questionnaire I gave specific examples of, "local ownership, small-scale production, direct selling, low intensity production or organic?", thinking that people would agree with or challenge these, but people gave these examples most frequently. However, in the DLFN questionnaire, where I gave less specific examples: "type of ownership, scale of production or production method", answers were less uniform and more expressive. This suggests that the examples provided in the question steered respondents' answers in the allotment holders' questionnaire. Similarly where questions required the respondents to tick beside a list of options, they infrequently suggested their own additions to the list.

3.3.7 Interviews

I contacted the 22 respondents to the local food business questionnaire to invite them to conduct a follow-up interview, and received six positive responses. I conducted interviews with each of these, each one lasting about 2 hours. I used an interview schedule to guide the conversation but the design was informal, semi-structured and active, so some questions were spontaneous. Thus the process was directive but not delineated and questions were open rather than closed.

I tried to achieve “intersubjectivity”; to think and form meaning *with* the interviewees (Ellen 1984). I was an active listener, rather than detached from the dialogue. For example, occasionally I did use “neutral” interjections as probing techniques, as recommended by Bernard, such as “uh-huh”, (Bernard 1995:215) but I also stimulated discussion by talking about my experiences and interpretations to break up the question schedule and encourage interviewees to expand on certain points. This method was informed by the social constructionist approach which acknowledges that knowledge is communicatively assembled in the interview process rather than excavated: “Both parties to the interview are necessarily and unavoidably *active*” (Holstein & Gubrium 1995: 4). This is based on three beliefs: 1) that humans are not bearers of culture, neutral vessels of experience nor passive repositories of unadulterated facts; 2) that interviews are “not merely a neutral conduit or source of distortion but rather the productive site of reportable knowledge itself” (*op. cit.*: 3); and 3) that there is no “true” answer to speak of - only personal senses of reality - because there is “no neutral, non-social, uninfluenced situation to provide that baseline” (*op. cit.*: 14).

Knowledge is endlessly created and reinterpreted not only during the interview process, but also before and after. Interviewees’ oral accounts of phenomena are thus dynamically constructed through communication. They may be affected by temporal, spatial and emotional factors as well as by the questions asked (Hammersley & Atkinson 1995). In my study, interviewer effects may have meant that accounts were shaped by what was assumed would be, “an appropriate, reasonable and meaningful answer” (*op. cit.*: 130). Each with their own agenda, interviewees may have prioritised or concealed information or regarded some information as unimportant. When I came to transcribe and code the interviews, my understandings and analysis interpreted it into a textual discourse. This further adds to the knowledge making which the writing culture debate highlights (Clifford & Marcus 1986). We cannot escape this “problem” of interpretation of knowledge except by acknowledging

that the interviewer is not an excavator of pure knowledge (Holstein & Gubrium 1995). Instead, I acknowledge how I may have affected the expressive and interpretive process (Hammersley & Atkinson 1995).

3.3.8 Interviewees

I outline the interviewees representing businesses in (Appendix G). Where disclosed, I have included their ages, which ranged from 30-63. Two interviewees were female and four were male. Below is a table (3.2) of the local food businesses I interviewed, in chronological order by interview date. I invited interviewees to specify the interview location, hoping that this would be within their work setting. Three chose for me to travel to their place of work, where we conducted interviews in office environments. I did however visit two of the businesses on occasions other than the interview, the first on a course and the other after being invited to look around their farm when visiting their farm shop. The other three interviews took place in a coffee shop in Durham City.

Interviewee	Role	Name of Business	Production	Processing	Sourcing	Retailing	Community
Wilf Richards	Co-op member	Abundant Earth	Fruit, vegetable, salad and egg producers	-	-	Veg. bag scheme	CSA courses
Jill Essam	Co-op member	Harehope Quarry	Demonstration producer – nature reserve, carp ponds, egg round in village, pig club, half acre food growing, bees	-	-	Egg round and pig club	Education centre
Caroline Tweddle	Farm Manager	Acorn Dairy	Dairy farm	Milk processing and bottling plant	cheese, yoghurt, bread etc.	Supply schools, shops, door step delivery	School assemblies, open days
Jamie Bond	Farmer's son	New Close Farm	Livestock, vegetable and fruit farm	Butchery	Bread, cakes, vegetables, fruits	Farm Shop and veg. box scheme	-
Mike Tones	Smallholder	Drygill Farm	Lamb producer	-	-	Direct sales from farm	-
John Turner	Executive Chef	Durham University College and Event Catering	-	Chef prepared meals	One of the largest local food purchasers in County Durham	Catering for students and guests	Share best practice with schools and colleges

Figure 3.2: Local Food Business Interviewees

3.3.9 Interview Schedule for Local Food Businesses

I drafted an interview schedule based mainly on expanding the questionnaire questions, maintaining the ORID design. I tested the interview schedule on Wilf Richards and we made a few changes together. The interviews contained the following:

Objective questions addressed the interviewee's job and the history of his/her business; what he/she considered to be local food and his/her opinions on the sector; what he/she sources locally and why; how and why their business sources from, and distributes to local markets; ideas about sustainability and local food; about legislation, subsidies and policies and carbon auditing.

The reflexive section was about motivations, so sometimes encouraged a more emotional response such as degrees of optimism, the challenges and advantages of localisation, and ethics and morals.

The interpretive section was about options, possibilities and aspirations, principles, energy dependencies, constraints to change, preparedness and ideas about an energy constrained future, and climate change.

The decisional section was about discussing his/her involvement with DLFN, his/her motivations to being a part of it, his/her hopes and future uses of the network and perceived barriers to using the network. We also discussed what they planned to do to develop the local food sector. Finally we talked about what he/she perceived to be the constraints to greater resilience, the restraints to developing the local food sector, and what could be the first steps to greater resilience.

The schedule I wrote for each interview varied slightly as I adapted each one in accordance to the interviewees' questionnaire answers and in accordance with their business type.

3.3.10 Conducting the Interviews

Interviewees were provided with a copy of the research information sheet (Appendix A) previous to, and at the start of the interview, and were given the opportunity to ask any questions they had about the research. The interviews were based on a verbally informed consent that I would not impart any commercially sensitive information and that they could choose to withdraw from the interview at any time. Beyond this, I offered interviewees the opportunity to tailor their own confidentiality agreement, inviting interviewees to say when they were talking about something that they did not want a remark to be attributed to them or recorded in the transcript. On quite a few occasions, interviewees talked about issues 'off the record', which was usually when they did not want to portray themselves or other businesses or customers negatively. I also checked that they were happy to be recorded, and for the

interview to then be transcribed and for them to possibly be quoted and named, and all permitted me to do so. I used a portable voice recorder and the recorder on my laptop to ensure that two copies were made in case one was lost or inaudible. I then transcribed and coded the interviews in Microsoft Word.

3.3.11 Market Stalls

I also ran a series of market stalls on behalf of DLFN. We saw the potential for a great deal of ‘stacking’ - a permaculture term meaning to achieve multiple ‘yields’ from one element or activity. The stall was firstly an information stall about the merits of local and organic food so I requested piles of leaflets and other promotional materials from organisations such as The Soil Association, Making Local Food Work, and National Farmers’ Retail and Markets Association (FARMA). We also gave out copies of DLFN’s own leaflet which I helped to design. I coordinated volunteers to run the stall with me at events including Durham Farmers’ Market, Durham’s Saturday market, Lanchester Agricultural Show, Alington House Christmas Craft Fair and St John’s Eco-festival, so as to reach different audiences. Many people came to the stall to ask where they could sign up to a box scheme or where they could find their nearest farm shop for instance. Running the stalls also provoked a good deal of interest from other stallholders at farmers’ markets, and so provided an opportunity to encourage them to sign up to DLFN or join the local food directory. Furthermore, I invited DLFN members to help me to run the stall, allowing me to meet keen members to discuss with them why they were interested in local food.

3.3.12 Sourcing Local Food

I thought that it was important to be seen to be supporting local food businesses by also buying from them, allowing me to build a relationship with the traders. I signed up to Abundant Earth’s vegetable bag scheme and bought produce locally and so only rarely ventured into supermarkets. This improved my understanding of what is available locally, to what extent it is possible to subsist on local food alone, and what changes to one’s dietary and shopping habits ‘going local’ requires. For instance, I found that I had to plan my shopping more than before, as the Durham Indoor Market closes at five o’clock, and the farmers’ market in Durham only takes place once a month, compared to one of the supermarkets which is open 24-seven. Through these efforts I understood how convenience is such a key reason why local food is considered a difficult option for many with less time flexibility.

In this final section of the chapter I focus on the political, ethical and epistemological implications of participatory action research (PAR) and co-inquiry action research orientations. I relate these to the techniques I employed – including the formation of aims and objectives, in analysis, review, and in the dissemination of findings (Appendix B). Within this I provide an account of the advantages and challenges I encountered in taking such approaches and evaluate its effectiveness.

3.4 Politics of the Participatory Action Research Orientation

Participation is an inherently political process as well as a research technique (Cornwall 2008). The collaborative, co-inquiry and participatory-action approaches which underpinned the research, attempted to catalyse and bring about practical change towards supporting local food.

PAR is particularly distinguished by its epistemological premises, the approaches that follow from these, and the political stances that it espouses. “Liberating the researcher from the modernist institutional constraints, it has the ability to transform, representing a major epistemological challenge to mainstream research traditions in the social and environmental sciences” (Kindon *et al* 2007: i). Academically, pragmatically and ethically, PAR rebels against colonialist histories of anthropology and is explicitly socially transformative (Kindon *et al* 2007). PAR requires us to question our priorities and formulate questions “so as to foster change and not simply to ‘explain’ what is.” (Kindon *et al* 2007: 1)

The political philosophy associated with PAR has been described as follows:

“PAR and the spaces with which it intersects are mutually constitutive...PAR alters the way that we theorise and produce knowledge within and between these spaces through its attention to dialogue, relationships and inclusive methods...PAR’s grounded and relational orientation towards knowledge construction therefore challenges the hegemonic norms of insular academic production and enables more diverse and contextually rich theorisation and actions to emerge” (Kindon *et al* 2007: 29)

It seeks to “provoke action by developing research that engages, that reframes social issues theoretically, that nudges those in power, that feeds organising

campaigns, and that motivates audiences to change both the way they think and how they act in the world” (Kindon et al 2007: 205)

Participation is a heavily contested concept. “An infinitely malleable concept, ‘participation’ can be used to evoke – and to signify – almost anything that involves people. As such, it can easily be reframed to meet almost any demand made of it. So many claims to ‘doing participation’ are now made that the term has become mired in a morass of competing referents.” (Cornwall 2008: 269). Pretty’s (1995) ‘typology of participation’, highlights the various goals or intentions of those using the participatory approaches. “The term “participation” has been used to justify the extension of control of the state as well as to build local capacity and self-reliance; it has been used to justify external decisions as well as to devolve power and decision making away from external agencies; it has been used for data collection as well as for interactive analysis.” (Pretty 1995: 1251).

Critiques of participatory approaches often refer to participation in the context of international development (e.g. Cooke & Kothari 2001), yet we can apply some of their arguments to a local setting of community activism. Participation can mean attempts to increase public involvement in governance, which can serve to maintain the legitimacy of power structures and divisions between collaborators and ‘experts’. Often, such invited spaces allow for public consultation in an essentially expert-driven process, merely dressed up as participatory. Participatory research’s emphasis is upon group work as a basis for action. Through holding multiple voices in productive tension, so that learning potentially takes place for all involved, PAR potentially offers a meaningful contribution to social change (Kindon *et al* 2007).

3.4.1 Co-production of Aims and Objectives

The term action research can refer to research in which theory is developed by practical interventions and it also implies a consistency between project means and desired ends. Since the 1980s, there has been a wave of PAR in community development contexts and since then research on agriculture, farming systems and farmers is a major sector of PAR. It often involves problem identification and analysis as well as markets and marketing potentials (Chambers 1994:961).

In line with PAR principles, the aims were defined to a large extent by the host community: The broad aim of the research was to support the local food sector in County Durham,

through supporting grassroots groups with the same aim. Thus, my research fed directly into both the strategic aims of DLFN and the DLF Website Project. I also hope that by voicing peoples' views, and making sense of the multiple knowledges and expertise of the community members and groups, this thesis will stimulate debate and inspire action to further the success of the scene.

Chapter 4

Local Food Practices

This chapter draws upon findings on the activities and practices of individuals and groups associated with the local food scene in County Durham. I illustrate how my collaborators perceive and understand their local food practices in relation to aspects of resilience. I refer to members of three of the main groups with which I worked: DLFN, allotment holders and people on the Council waiting list for an allotment in Durham City, and local food businesses from around the county. In addition to these groups, I refer to two Durham City based groups; Durham Fruit Group, who are primarily focused on foraging and community food growing (see Durham Fruit Group 2009), and Durham FoodCycle, who redistribute surplus food and reduce food waste by producing meals for people affected by food poverty.

This chapter is organised around five phases of a loop that I use to characterise the local food chain (fig. 4.1).



Figure 4.1: The five conceptual phases of the food chain

I have deliberately chosen this cyclic representation rather than a linear production-consumption, ‘farm to fork’ or ‘systems of provision’¹⁴ model. Although each stage of the process is linked with the others and without clear boundaries, for analytical purposes I address each in turn, starting with production inputs.

Local Food Business Diversification

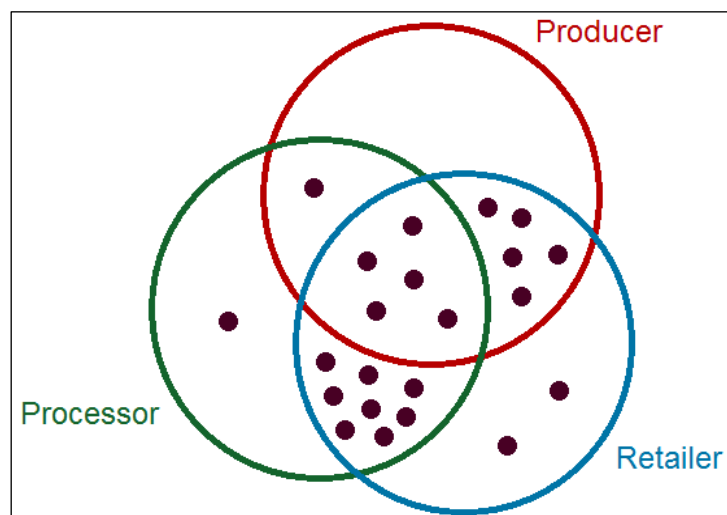


Figure 4.2: Production, processing and retailing; the multiple business functions of local food businesses. Each dot represents a business questionnaire respondent.

Half of the local food business respondents were producers who produce/harvest a considerable amount of food within 50 miles of the business (Q16). Just over half respondents said that they process food (Q25). Nearly all of the respondents were local food retailers (Q31) (fig. 4.2).

Local food business respondents said that they had diversified into multiple parts of the food chain (fig. 4.2) such as processing mainly because outsourcing is costly. For example, the Bonds of New Close Farm¹⁵ decided they needed their own butchery if they were going to start selling their own free range chickens, as Jamie Bond explained:

¹⁴As used in Kneafsey *et al.* (2008), for instance.

¹⁵ Unless stated otherwise, references to Harehope Quarry, Drygill Smallholding, Acorn Dairy, Abundant Earth, New Close Farm and Durham University catering, refer to information I gleaned during interviews with each businesses representative (see Appendix G for interviewee profiles). In this chapter, in writing about the businesses the interviewees represented I am not expressing my views, but simply relating what the collaborators have told me, often using their own words. Hence the references to sustainability rather than resilience for instance.

“It doesn’t make sense to grow them, and then send them somewhere else to be slaughtered and processed and bring them back to us again because it would probably double the cost. Talking on the small scale – 10 to 20 birds a week...we would probably have to charge £5 a bird just to cover the transportation and processing costs – which would double the price of it.”

However, running a multi-phase business is often time intensive. Farmers such as the Bonds and those at those at Abundant Earth who run vegetable box schemes, have neither the time nor the staff to attend farmers markets for instance, so if this was something they were going to pursue they would need someone else to sell their produce for them.

4.1 Production Inputs

Localisation of food systems not only means that the food itself is locally produced: advocates often also source the inputs for production from as locally as possible. Local Food business questionnaire respondents reported that they tend to source a high proportion of their inputs from their own land or within 50 miles of the business (Q22LFB). Examples of inputs producer-respondents source from their own production process include: grass, manure, straw, silage, compost and animal feed (Q18LFB). Interviewees often said that they sourced inputs from their own production process as it is more cost effective and keeps overheads down. For instance, food production is only a small part of the income of Harehope Quarry, as it functions more broadly to demonstrate sustainable living and development. However, food production generates a significant amount of their income for them because being off-grid, and off mains water, they have few overheads. At Harehope Quarry, some of their inputs come from recycled waste, linking up the food and ecological cycle. For example compost toilets collect human waste, the compost from which is used to fertilise trees, and chicken manure is used to fertilise vegetables. In the past they ran a local composting scheme, collecting garden waste from nearby villages. The council now operates its own such scheme, but they still compost their own garden waste and Jill keeps a worm bin for food waste. An example of ‘one person’s waste is another’s resource’ is that at Harehope they use a local farmer’s soiled straw as a mulch in their forest garden.

Producer respondents source the following products which are produced elsewhere in the UK (Q20LFB): animal feed, labels, organic yogurts, organic produce, fertiliser, pesticides, packaging, seeds, machinery, rennet, vet and medical supplies, disinfectants and plastics.

They gave the following examples of products which they source from abroad (21): animal feed, fuel, machinery parts, pesticides and drugs.

In addition to prioritising local sourcing of inputs, producers often also seek products with low embodied energy. Many local food business respondents use low levels of artificial chemicals, or none at all. They tend to manage their soil organically, or semi-organically. Diversified organic farm systems have been found to reduce energy use in production by up to one-half compared to conventional production, mainly due to the absence of conventional fertilisers (Zentner 2011). Organic methods also increase the soil's capacity as a carbon sink compared to conventional approaches (Soil Association 2009b). Organic farming in Northern Europe produces 28 percent higher levels of soil carbon compared to non-organic farming. The widespread adoption of organic farming practices in the UK would offset 23 percent of UK agricultural emissions through soil carbon sequestration (Soil Association 2009b).

Jill Essam estimated the most energy-intensive part of the production process at Harehope Quarry to be the animal feed they buy in, because it is processed and transported more than any of their other inputs. Acorn Dairy and Drygill smallholding produce much of their own animal feed, which not only reduces their costs but also the embodied energy that would result from the transportation and processing of feed. Respondents and interviewees generally understood the rearing of animals to be more energy-intensive than arable or horticultural production.

Another important input into production processes is the direct use of energy. Interviewees were all already either using renewable energy, or were interested in the possibility, especially as it has become more financially viable since the introduction of feed-in tariffs. Of the five producers I interviewed: Abundant Earth does not directly use any fossil fuels in food production. Rather than being energy-intensive, their methods are labour-intensive. All the other four producers use red diesel to power farming equipment and vehicles, such as tractors, and some use grid-generated electricity to power machinery. Mike Tones of Drygill is considering installing photovoltaic panels on his hay shed, when a grant becomes available. New Close Farm are considering installing a wind turbine or photovoltaic array, attracted by the feed-in-tariff. Harehope Quarry generate all their energy from on-site wind, solar and hydro but they are not grid-connected. Acorn Dairy have installed solar panels which were funded by One North East and they are now considering wind.

Producers are not always able to make decisions about their production methods according to their principles. Mike Tones explained why he thinks the biggest threat to sustainable farming are external, top-down forces:

“In terms of keeping environmental and economical and social issues in balance, it [farming resiliently] is a huge challenge and it’s nearly always out of my control...Economics are the driving force...[they] dictate market forces, cultural practices and the way businesses operate and ...ultimately, in particular because we have the EU farming policies, that’s where the direction can only come from... the perception amongst farmers is that the UK government doesn’t want people in farming...One of the things we have done in agriculture over the last half a century, we have destroyed the ability of...small family farms to maintain a satisfactory standard of living. Everyone says that’s market forces and that’s it, go and wash our hands of it. But of course market forces are controlled by government and other control measures. So it’s up to us whether we want to set the economic and sustainable framework around family business or whether we want to have big agri-business.”

Mike Tones went on to say that for farming to be based on principles of economic and environmental sustainability, the financing of farming needs to be revolutionised so that agriculture can be profitable without the need for large amounts of external financial support. Mike says that in theory, schemes such as Environmentally Sensitive Area (ESA) encourage farmers to farm sustainably, although for him it does not affect the way he farms as he has “always farmed in that way, and always will”, but he acknowledges that it is an incentive for many to farm perhaps more sustainably than they would otherwise. Overall interviewees thought that regulations associated with the subsidies were ‘restrictive’ and ‘unenforced’, and the paperwork and bureaucracy exasperated all my interviewees, some of whom claimed that it takes several days to fill in the forms.

4.2 Growing and Production

The popularity of ‘grow your own’ is evident in DLFN. Over three quarters of DLFN respondents’ households produce food for personal consumption¹⁶. Over half “grow a few things, but not much” and just over a quarter said that they “grow lots of food” (Q9DLFN). Only three respondents, out of 22, do not have access to a garden or an allotment. All DLFN respondents think that it is likely that more people will grow their own in the future (Q15DLFN).

Growing your own and allotment holding seems to have become more popular since the 1980s, especially in the last 10 years (Q6Allot.). Almost all allotment holders, in addition to their allotment, also tend to grow food in their gardens at home (Q22Allot.). The greatest proportion of allotment holder questionnaire respondents were 50-70 years of age (Fig. D2) (Q12Allot.). Allotment holders tend to visit their plot once a week or more (Q7Allot.) and tend to live within two miles of their allotment with over a third living less than half a mile from their plot (Q8Allot.). Over half of allotment holders walk to their allotment and a third travel by car (Q9Allot.).

Over 80 per cent of respondents use organic methods (Q18Allot.) and most claim that their gardening practices, in terms of being “environmentally friendly”, are ‘very’ or ‘quite’ green (Q14Allot.). More generally, most considered their lifestyles to be ‘quite green’, with a few saying that they are ‘very green’ (Q15Allot.).

Eleven of the local food business questionnaire respondents’ businesses include food production (Q16LFB). Collectively, they produce eggs, milk, chicken, geese, beef, sheep meat, pig meat, fish, vegetables, fruits, cereals and honey; mixed farming of more than one main product is common. Nearly half of the food producers stated that all of their food is consumed within 50 miles of where it is produced (Q23LFB). The rest mainly said that most of their products are consumed within the county with the remainder being sold within the North East (Q24LFB). Cereal and beef, in contrast, were being sold to wholesalers rather than direct to the public or to local food businesses.

¹⁶ Throughout I tend to use ‘consumption’ in this sense: in terms of use of food rather than its purchase, so as to include sources of food not necessarily involving money such as gifted allotment produce or foraged foods.

Producer practices suggested high levels of resilience. For example, the members of Abundant Earth workers cooperative use permaculture design techniques. They grow over 30 different vegetables and fruits, from beetroot and redcurrants, to asparagus, courgettes and Jerusalem artichokes, using companion and rotation planting techniques. Any excess of produce such as pumpkins, garlic and onions is stored in shelters without the need for refrigeration. Straw is often used as mulch, sometimes over a layer of newspaper or cardboard to prevent weeds. There is no mains water on site, so all water is harvested from the roof of their field shelter and stored in large plastic tanks. They have a poly-tunnel for extending the season for growing salad, herbs and tomatoes. Long strips of black plastic sheeting are laid onto beds and topped with old tyres to prevent it from blowing away. The lack of light kills weeds so that they are easier to remove before the beds are planted. The sheeting also warms the soil and prevents leaching. Large water containers are used as cloches to protect plants from pests and frost and the whole vegetable plot is enclosed with a rabbit-proof fence. Like many local food producers, they are “along the lines of being organic” (Wilf Richards) - meaning that they are not registered organic, but use organic production techniques. They make some of their own fertiliser using comfrey (*Symphytum*) leaves. According to Wilf Richards, the rotting leaves secrete as much nitrogen, potassium and phosphate as cow manure. They occasionally also buy woodchips and cow and horse manure locally. All waste is composted, reused or recycled. The chicken coop is mounted on a trailer surrounded by portable electric fencing, allowing the hens to be free range yet protected from foxes, and for them to be moved around the land to fertilise new areas.

The practices of New Close are similar in that they use energy saving techniques, grow animals slowly, are “very” free range, support biodiversity, maintain and plant new hedgerows and trees, are non-intensive, mechanically light, labour intensive, and do not spray chemicals. However, New Close Farm use a tractor, rotovator, harrow and plough to save time:

“We’ve got a couple of horses...It looks great, but unless you’ve got loads of people to do it, you can’t justify spending a week ploughing a field, when you can do it with a tractor in an hour – unfortunately.”

All producer interviewees maintained that they support biodiversity beyond conventional practice. The frequent sighting of owls and hawks, predators at the top of the food chain, is taken to indicate the abundance of biodiversity. Jamie Bond of New Close Farm told me how

they work with Rare Breeds Survival Trust to help prevent the extinction of rare breed farm animals. At Abundant Earth wildlife is encouraged – from wood piles for insects, digging ponds, growing a large variety of plants which attract wildlife, and by maintaining hedgerows. These are examples of how the owners encourage multiple ecosystem benefits, which they value as complementary to food production.

Mike Tones has diversified into hogget which is the meat from young adult sheep. The lambs are grown more slowly than in conventional farming: rather than being intensively fattened on concentrate feedstuffs and straw, they drink their mother's milk and are then grass-fed. Again, this dramatically reduces costs of buying feed in and levels of external inputs into the production process. Mike Tones uses a tractor, trailer, muck spreader and chain harrows, all powered by diesel. He considers the use of these and (agri)cultural activity such as making haylage¹⁷ to use the most energy in his business.

Drygill is ESA managed, a scheme which encourages sustainable practices such as tree planting, spot (rather than blanket) chemical treatments and other practices conducive to nesting birds. Similarly to many small scale producers I met, Mike Tones' farming practices would nearly satisfy the criteria for organic certification, but he does not consider certification to be worth the investment. Although such producers are not allowed to say they are 'organic' strictly speaking, the close connection between customers and the production process often foregoes the need for the official certification. Although Mike Tones only rears sheep, he recognises that smallholders and small-scale producers often need to diversify by maintaining poly-agricultural units which are often more resilient (agri)culturally and economically, both on a local and on a national scale.

Harehope Quarry includes 14 co-op members who do nearly everything by hand. They use no chemicals and production of food is very small scale. They do have the capacity to produce considerable amounts of renewable energy on site.

¹⁷ Haylage, according to Mike, is "silage which has been allowed to dry further so it's 7/8ths of the way between raw grass and hay... it's quite dry so will still preserve itself. It's more convenient, given the weather in upper Weardale and contains more nutrients than hay".

Acorn Dairy is the only organic dairy in County Durham. They graze about eight Dairy Shorthorns on every ten acres, less intensive than non-organic farming which, according to Caroline Tweddle, tends to keep approximately ten cows on ten acres. Caroline considers their farming to be low-impact as they “produce within their own means”. They also do not feed the cows very much concentrated feed, so the cows are not as productive as in conventional systems. As a consequence, animal welfare standards are high, and animal health issues associated with intensive farming are less of a problem.

4.3 Sourcing, Processing, Storage, Distribution and Retail

Durham University does not produce any of its own food, so has not been mentioned up until now. The university catering fulfils an important economic role in the local food economy, being one of the largest caterers in the area. John Turner, Head Executive Chef considers the university to source over half of its food locally, and up to 80% of its vegetables (mainly from North Yorkshire, Gateshead and Northumberland) when they are in season. Most local produce is available in Summer and Autumn with very little available in Winter. Streamlining menus across the ten colleges that the centralised procurement covers allows them to purchase using economies of scale and makes them easier to supply. John Turner told me how their producer-suppliers also benefit by reducing their administration costs and the number deliveries. The University has helped coordinate smaller suppliers to work with one distributing company to cut down on deliveries. In 2010 this resulted in a reduction of 73,564 delivery miles, equivalent to 41,557 kilos of CO₂ emissions.

The university has 3,000 products on its purchase list; not all of these can be source locally because “the infrastructure and producers are not here and there are certain global products” which can not be sourced locally on the scale or at the quality standards the university requires. To source pork, for instance, they have “just had to move out of the area because we’ve pretty much used it all up”. Sometimes they are forced to look for cheaper options than can be found locally: for example, Bernard Matthews sells turkey at less than a third of the price than the local sources the University looked into. Products Durham University would like to source more locally include beans, oilseed rape, ice and turkey. Animal welfare is especially important for the university when considering new suppliers. For example, in checking the provenance of eggs, procurement staff consulted the Egg Marketing Board and DEFRA for definitions to set some guidelines and then went to ten local farms, checking the barns, holes, slashing, beaks, extent of free range, cages and so forth. They subsequently

considered the distance from the university, suppliers' capacities, and health and safety aspects.

The products local food processor respondents make included 'organic milk, cream and butter', 'salad dressings, relishes, and infused vinegars', 'various cooked meals in a restaurant', 'cheese', 'cakes', 'cooked meals', and 'a la carte meals' (Q26LFB)

Examples of ingredients local food processors - including restaurant chefs, an event caterer, dairy staff, a cheese manufacturer and cake maker - frequently source which are produced within County Durham include vegetables, flour, butter and milk. The most commonly reported processor input was red meat, especially lamb and beef (Q27LFB). Processors listed that they sourced the following ingredients from outside the county, but from within the UK: potatoes, milk, butter, cream, cheese, custard, eggs, lamb, mustard, soup, ice cream, flour, cake, sausages and dressings (Q28LFB). Processors' examples of ingredients they often use which are produced abroad included; organic vegetables, vinegar, sugar, rennet, sea food, sea trout, margarine, tropical fruits, prawns, sugar, black pepper and bananas (Q29LFB).

Processors expressed difficulty in defining the proportion of their ingredients that they sourced from producers within 50 miles: some said that it was dependent on cost; others highlighted variability due to seasonality, availability and demand; others said that it was "impossible to define" by number of products or weight. Out of the 12 processors who did try to quantify it, two said 'all', eight said more than half (Q30LFB).

Where local inputs are not prioritised over inputs sourced from further away, interviewees justified the need for the prioritisation of organic, for example, for consistent branding, or due to the need to stock products that cannot be grown locally.

Durham University (2011) has a carbon management plan to achieve 30% emissions reduction on a 2008/9 baseline by 2014. John Turner explained how Durham University hoped to decrease its reliance on fossil fuels by using the latest technologies and innovation such as induction, to reduce energy usage of new cooking equipment by forty percent.

Jamie Bond thinks that the most energy-intensive part of his business is likely to be processing and storage, including energy used by the three-phase electric chiller and with the mincer and vacuum packer in the butchery. He considers the retail and production processes of the business to require less energy.

Caroline Tweddle, thinks that the mechanised processing bottling plant is the most energy-intensive part of the business. Her ideas for how they might lower these in an energy constrained future included increasing fridge capacities and making the milk a longer life product, which would allow them to make fewer deliveries and cut down their use of energy for distribution.

Durham University depend on non-renewable energy for all of their cooking and for 84% of their storage, the remainder of which is powered by solar energy. However, John considers the holding, cooking, and waste associated with the catering to be relatively small and considers the most energy-intensive part of the system to be the “production, harvesting, processing, holding, transportation; before it comes to us”.

For Abundant Earth, food miles associated with distribution, according to Wilf Richards, are mediated by the customer’s willingness to travel, and the business’s willingness to deliver. In order to maintain a small distribution network of their produce, Abundant Earth restricts their deliveries to local drop-off points within Durham City and nearby villages rather than delivering their veg. bags door-to-door. This is primarily an economic decision given that it would mean that they would need to drive further to deliver to a wider customer base, but also one that makes “environmental sense”. Their vehicle has been converted to run on used frying oil from a local pub.

Similarly, New Close Farm Shop customers are usually local as people are only prepared to travel a short distance for their groceries. Acorn Dairy, in contrast, has a larger distribution network, reflecting the nature of milk sales. All the business personnel I interviewed said that delivery distance primarily depended on economic viability. Considering the rising cost of fuel, the incentive to deliver locally is increasing.

For some products, markets can not be found locally. All of the food produced at Harehope Quarry is consumed within the county, with the exception of carp. Significant demand for this is found only in Polish and Jewish communities and Chinese restaurants so it inevitably has to be sold further away.

Durham University catering have looked into electric delivery vehicles but found that there were not sufficient charging points.

The 19 local food retailers who returned the questionnaire listed the following products that they stock which were produced within 50 miles: meat, dairy, flour, beer, apples, fish,

potatoes and vegetables (Q32LFB). Retailers gave the following examples of products they source from elsewhere in the UK: bacon, vinegars, beef, salmon and chicken, coffee, smoked salmon, potatoes, mushrooms, tropical fruits, cheeses, tea, rice, turkey and fizzy drinks (Q33LFB). Local food retailers varied in the amount of food they source from local producers within 50 miles of the business, ranging from 'all' to 'hardly any' (Q35LFB).

Mike Tones talked about the hidden costs of the conventional food system. Paradoxically, considering the popular perception of the 'expense' of local food, and the frequent assumption that in accounting for the hidden costs, sustainable or organically produced food is bound to be more expensive, Mike sells his lamb at a fraction (almost a quarter) of the price in supermarkets, and reserves his best lamb and hogget for the local market. As well as often being cheaper for the customer, selling directly means that producers and retailers can achieve higher revenues by excluding the middlemen. Jamie Bond of New Close Farm explains:

“Economically it’s better for us because we’re not paying merchant prices. So we can buy it for less from the farmer - than what we would buy from the wholesaler for, but we’d still give him [the farmer] more than he would otherwise get as well. So we each take half of what would have been the middle man’s cut: They get slightly more, we pay slightly less; everyone’s a winner...Depending on the time of year...our organic stuff will be cheaper than some supermarkets, especially Tesco local stores’ normal stuff.”

Whilst supermarkets are blamed for forcing down the portion paid to farmers, for Acorn Dairy, selling some of their milk in northern supermarkets “keeps their costs down”. The bottles they sell to supermarkets incur lower costs than the 250ml bottles schools buy for instance. Also, supplying a supermarket with large volumes lets them benefit from economies of scale whilst also ensuring that they keep their production standards high.

Mike Tones thinks that consumers who buy locally reduce their travel costs, as well as the transportation and “whole life costs” along the food chain, both of which, he asserts, his customers take into account. He thinks that in the UK, we pay far too little for our food in supermarkets, because it is bought from wherever it is cheapest on the global market:

“The supply chain is horrendously short. If there’s an oil crisis, four or five days and the supermarkets wouldn’t have any food. Can you imagine what’s

going to happen? People in Newcastle will be rioting! They have done in the past...the supply chain is bad and that's because there's a huge food depot in Bristol and they send their food up the motorways here. If we had local, it wouldn't be necessary. So these whole life costs, we've hardly started looking at those".

This has hidden costs for food security according with Simm's (2008) analysis in *Nine Meals from Anarchy*.

4.4 Marketing, exchange, storage, preparation, consumption

A significant amount of DLFN members consider themselves to be local food enthusiasts (30/42) and a few consider themselves to be local food activists (9/42). However, DLFN members primarily describe themselves as local food consumers (40/42) (Q1DLFN). This is reflected in their consumption patterns, as all DLFN members consume at least some local food. Most DLFN members claimed that a significant proportion of their diet is local food (Q10DLFN). Almost half of respondents claimed that “nearly all”, “over half” or “half” of the food they eat is local food. 16/41 respondents said that “less than half”,¹⁸ and only two said that they eat “hardly any” local food. Four respondents felt unable to quantify the amount due to seasonality and because it depends on how you define local.

¹⁸ In retrospect, I should have allowed an intermediate category here

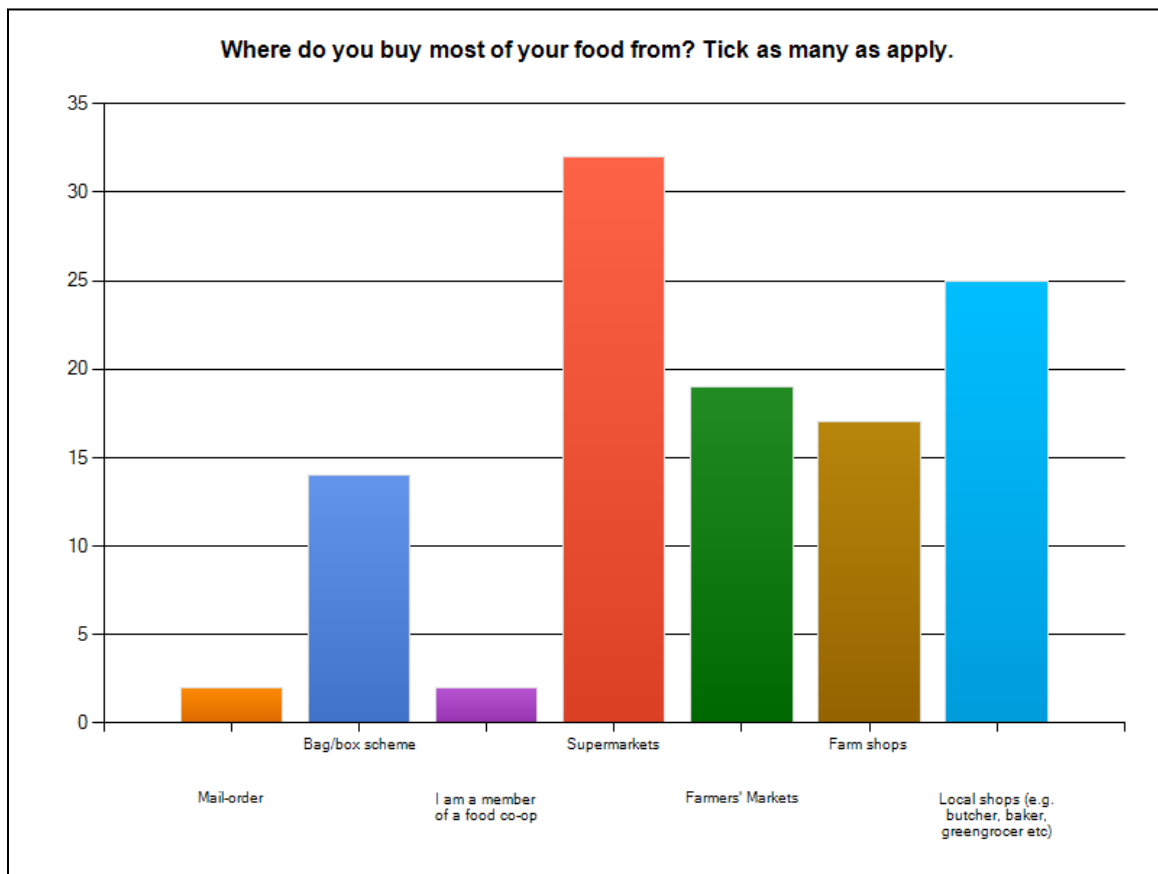


Figure 4.3: DLFN members' food shopping habits

Over a quarter of DLFN said that they avoid supermarkets (Q4DLFN), although most respondents marked it as a place where they buy most of their food (Q7DLFN) (Fig. 4.3).

Over a quarter described themselves as anti-capitalist. One seventh of respondents described themselves as a freegan¹⁹ or an occasional freegan (Q1DLFN). In addition to supermarkets, respondents also listed box schemes, farmers' markets, farm shops and local shops (such as butchers, bakers and greengrocers) as places where they also buy most of their food from. Others commented that they buy food from Durham Indoor Market, direct from local farmers, Suma²⁰, that they grow their own and forage from hedgerows.

Allotment holders and prospective allotment holders also tend to have a diet which includes a significant proportion of local food. Most said that this was "less than half", but many also said "half" or "over half" of the food they eat is local (Q27Allot.). Furthermore, over a third

¹⁹ Freeganism is the practice of claiming otherwise 'wasted' food, which is often thrown away by retailers in particular, whilst it may still be edible.

²⁰ Suma are wholesalers specialising in ethical, organic and fairtrade food, committed to ethical business

of allotment holder respondents claimed that at least half of their diet is food that they have grown themselves (Q17Allot.) (fig. 4.4).

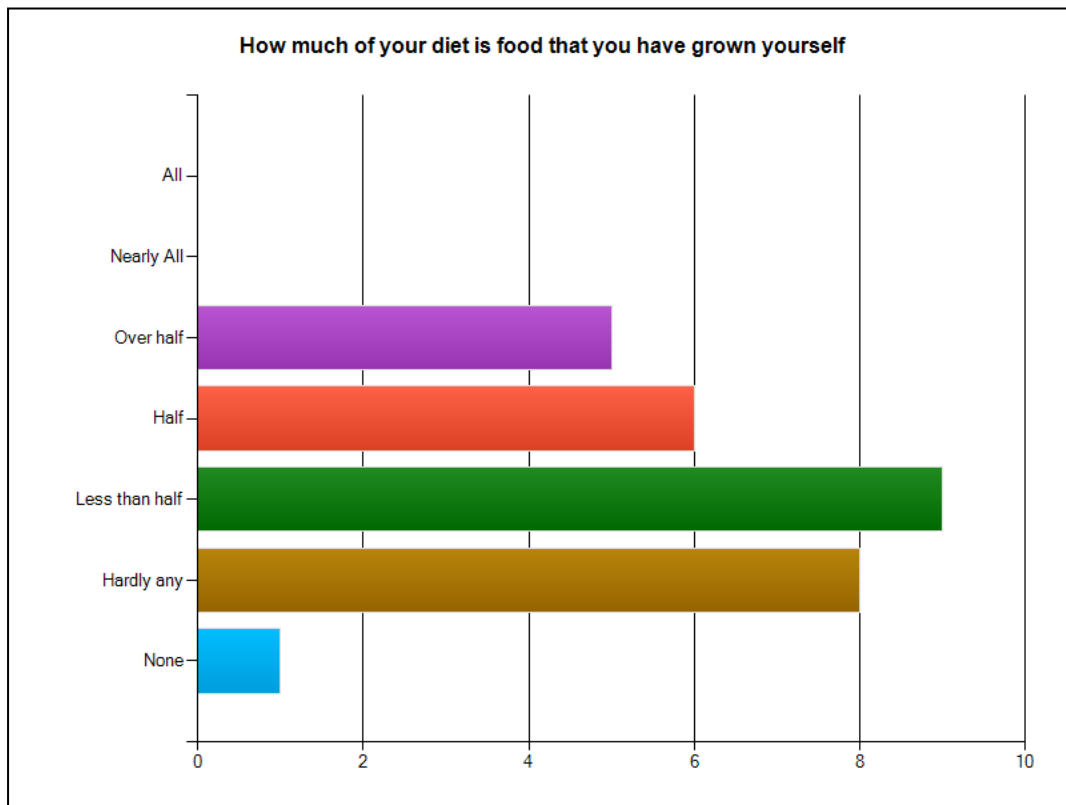


Figure 4.4: Proportion of allotment holders' diets that is food they have grown themselves

Other than consuming their own produce, all allotment questionnaire respondents use supermarkets, whereas over three quarters use local shops, half use farm shops and over a third attend farmers markets (Q23Allot.).

A local food businesses interviewee mentioned that customers are likely to be responsible for a substantial amount, if not more, of the energy usage associated with the consumption of their products such as cars use and energy for cooking, than is used to produce, process and retail some local food.

4.5 'Waste' Disposal and Resource Recycling

Permaculture teaches that 'waste' is better conceived of as an 'unused resource' which can aid closed loop cycling of energy within the food cycle (Holmgren 2002). Allotments, I posit, have high levels of social-ecological resilience, especially with regard to linking consumption to production through seed saving and in ensuring minimal food wastage. I

summarise these waste minimising practices as 1) giving, redistribution and exchange 2) storage, 3) (re)cycling, which I will illustrate in turn.

Firstly, excess allotment produce is often given to friends, family, neighbours and colleagues (Q16Allot.). A small amount of allotment holders exchange produce on Durham Exchange, a Local Exchange Trading System (LETS) in which members use 'Hours' as a currency. Durham Fruit Group members similarly assist fruit tree owners to harvest and donate their excess produce to charitable causes, redistributing surplus amongst the community.

Secondly, in comparison to most food waste which finishes its lifecycle in landfill, producing methane as it decays, surplus allotment produce is often stored for use later, using methods such as freezing, pickling, preserving and drying. Storage is important for local food as seasonality means that fruits and vegetables tend to come in gluts.

Thirdly, allotment produce which is not used for human consumption still plays a positive part in ecological cycles as it is also promotes wildlife: for example when fed to wild birds, fed to hens, or composted to replenish soil composition and nutrient levels. When left to set seed it completes its life-cycle, which can further reduce the need for external inputs.

The cycling of waste into inputs by producers was covered at the beginning of this chapter as an aspect of efforts to minimise inputs and create a more closed system. A few more instances of waste minimisation are worthy of mention here. Abundant Earth use alternative forms of exchange, such as accepting payment in the form of time, often spent volunteering in the vegetable garden. I also experienced gifting at Abundant Earth: trees, plants, eggs and vegetables are given to volunteers and visitors. Storage, for example of garlic, onions and pumpkins, is also important to minimise waste during gluts.

At New Close Farm Shop, customers sometimes donate excess garden produce to the shop. For instance, when a customer's plum tree fruited heavily last summer they gave some to the shop to be sold or made into jam, demonstrating how they are seen as a community resource for food exchange.

Durham University cuts down its waste right through the food chain, even before the produce is transported to them by asking their supplier to trim and use waste from their fruit and vegetables and compost it or use as animal feed: "We're not paying to transport waste around!" By using a just-in-time delivery system they cut down on waste and onsite refrigeration. The University's used cooking oil is collected and recycled into biodiesel.

Food Cycle redistributes food that would otherwise go to waste. Their volunteers, mainly from Durham University, collect and prepare surplus food to cater for people affected by food poverty. Durham Fruit Group members collect and sell surplus fruit from around Durham that would otherwise rot. Some of their profits are reinvested to plant more fruit trees around Durham. As with freegans, these groups highlight the colossal wastage that occurs within the conventional food system.

4.6 Chapter Summary

This chapter has looked at practices which connect stages in the food chain: from pre-farm or pre-allotment production inputs to 'waste'; and from producer to consumer and often visa versa. Practices which are building social-ecological resilience are evident throughout the food chain. To summarise, local food businesses often combine processing and retail, and sometimes also production, within one business, so that outsourcing can be minimised and inputs can be produced within the business or sourced from nearby. Many local food producers have mixed farms, producing a wide variety of products, although seasonality is inevitable. Among all sectors and on allotments, products with low embodied energy such as local or organic products are often favoured, when economical. Renewable energy production is high and the use of artificial chemicals. Few machines are used, which often means that work is more labour intensive and can take longer. Producers commonly have low input, low carbon farming systems where energy demands are minimised. Methods such as low-intensity and promoting biodiversity are also common. Processors are aware of the energy intensiveness of mechanised processing but are looking to source more renewable energy. Distribution distances are often short and social connections between local food businesses' workers and their customers, neighbours and suppliers are high, as direct sales are common. Systems of storage, redistribution, giving and exchange are common and waste matter is often recycled so that nutrients and energy, for example, are retained in the system.

The local food practices documented include mechanisms to avoid or minimise wasteful, polluting and energy intensive processes and indicate a high capacity to adjust to change. Such practices can be seen as creating alternative means of provision which enable individuals and groups to alter their consumption patterns in line with a New Economics of sustainable consumption and for increased socio-ecological resilience.

Chapter 5

Subjectivities of Local Food

Having explored the local food practices with reference to resilience, the rest of the thesis considers what is sustaining and hindering the local food scene. This chapter examines dialogues about the meanings people attribute to local food, highlighting what it is about local food that is important to them and how this relates to their value systems and ethical frameworks. Further to this, I explore to what extent the local food system can be considered reactionary or conservative and ‘alternative’ to the ‘conventional food system. I finish by developing a working meaning of local food for the DLF website.

As a culturally constructed concept, local food is made meaningful through practical engagement and cognition, and further negotiated through dialogue. The multifarious ways in which local food is construed reveal distinct, yet overlapping narratives and agendas. I consider this diversity of meanings and motivations to be a key factor in the capacities of the scene. To use a term important in both permaculture and the literature on social-ecological resilience, this creates ‘edge’ (Holmgren 2002: 223-238; Turner *et al* 2003; Henfrey forthcoming); opportunities for interaction and dialogue across apparent boundaries that increase the range of possibilities open to specific actors or groups, and the collective capacity of the system as a whole. Maintaining this edge will be important in sustaining the success of the local food scene.

5.1 Do we Need a Definition of Local Food?

A recent Local Government Regulation (2011a) survey found that 18 percent of products labeled as ‘local’ were undoubtedly false with a further 14 percent unable to be confirmed: “These false claims were found at similar levels across all food sectors with almost one in five restaurant descriptions misleading customers. Meat and dairy products were frequently misleading with 50% of poultry, 29% of sausages, 27% of both beef and lamb and 24% of dairy products all completely false” (Local Government Regulation, 2011a). In a press release on the survey, Paul Bettison, Chairman of Local Government Regulation responded to the findings: “At present there is no widely agreed definition of the term ‘local’ and it isn’t

acceptable. Everyone should be operating in a fair environment and following the same rules. Defra and the food industry must agree the definition of 'local'. Whether it is food manufactured within the county or within a 30 mile radius, any agreement would certainly help protect consumers.” (Local Government Regulation 2011b).

Several businesses personnel interviewees remarked that they often find that businesses and markets that purport to sell local food are actually not - a perception that was confirmed by findings by the Local Government Regulation (2011a). When these products compete with local products, Mike Tones says, this takes business away from the struggling rural businesses. Mike does not have a problem with olives, for example, being sold in the local markets as these cannot be produced locally, but he claimed that meat products from Bishop Auckland are being sold in Stanhope “unnecessarily” and he thinks that both understanding among customers and the necessary transparency are lacking. Jamie Bond suggested that local food is a term prone to appropriation by commercial interests: “Too many people jump on the local food band-wagon, when their stuff isn't local it's just...it's not black and white, there are degrees. We [New Close Farm] just try to be open and transparent to the public.” However, most interviewees were not keen on the idea of official regulation of businesses' claims to be selling 'local food', as they thought that it might be too “protectionist” and inflexible. Rather, many thought that consumers should make their own informed decisions, and that businesses should allow for this by offering transparency. However, branding of 'local food' was a more popular idea amongst businesses and consumers alike. Several local businesses I spoke to would be keen on developing a local accreditation to signify quality associated with a locality.

Definitions and descriptions of the purposes and uses of local food chains, and local food discourses have been popular outcomes of academic enquiries into local food (e.g. Mackridge 2007; Jones *et al.* 2004). These have encompassed the limits to the geographic distance between producers and consumers, the emotional and ethical meanings, as well as loosely specified references to the implications of local food - economically, socially, environmentally and with regards to animal welfare, health, education and culture. Academic concepts that help to characterise local food cultures include bioregionalism, “the integration of human activities within ecological limits” (Pretty 2002: 117) and foodsheds, “self-reliant locally or regionally based food systems comprised of diversified farms using sustainable practices to supply fresher, more nutritious foodstuffs to small scale processors and

consumers to whom producers are linked by the bonds of community as well as economy” (Kloppenbergh 1991). Concepts like these give “an area-based grounding to the production, movement and consumption of food” (Pretty 2002: 117), and have begun to enter the activist literature on local food (e.g. Pinkerton & Hopkins 2009: 20). While respondents in the present study rarely used these precise terms, many of their own ideas seem to have close parallels with the concepts they represent.

As the authors of *Reconnecting Consumers, Producers and Food* (Kneafsey *et al.* 2008) attest, notions of quality, speciality, and/or regional heritage are not by themselves enough to encompass the meaning of local food. Nor do I consider that local food can be adequately distinguished by a set of characteristic methods of production, scales of enterprise, or size of carbon footprints, for example, as there are exceptions to each of these criteria. Rather, I adapt the position of Kneafsey *et al.* (2008) in asserting that a key attribute of local food is *the form of social relations between persons critically engaging in the food cycle*. Kneafsey *et al.* found that for the majority of their collaborators local food implied, “fundamental changes to the relation of production and consumption”, particularly manifested as attention to the needs of others and maintenance and repair of the environment (2008: 161). Connection and trust among individuals in the scene, and the transparency over the attributes of food that this provides, allows local food consumers to know the implications of the food they eat, for the whole of the cycle. As Jamie Bond from New Close Farm shop put it:

“Personally, I think that it doesn’t matter to have a specific definition of local if producers and customers are properly linked up and have an understanding about what they are producing / buying. We produce our own as a first priority and source other things locally when we can from trusted producers. For produce that’s not available locally for whatever reason, we then only use organic as it gives the best available standards around quality (usually) and also environmental impact. The key thing is that our customers understand this and a) trust us to ‘do what is best’ and b) believe in a similar philosophy.”

Jill Essam similarly emphasised how she feels that it is up to the seller to be clear about what they mean by local food and offer transparency so that discerning customers effectively become the regulators of the food system, rather than relying on a meaning defined by legislation and regulated by bureaucracy, as is the case for organic certification.

5.2 Which Parts of the Food Chain should Local Food Include?

Within the possible questionnaire answers for what local food means, I included options such as ‘food *processed* by a local business’ and ‘food *sold* by a local business’. There was near consensus within and among all three groups of questionnaire respondents, and the website team, that local food is primarily qualified by the *location of production relative to consumption* (Q5DLFN, Q14 LFB, Q24Allot.). Only one out of 90 respondents considered local food to refer primarily to localised processing and retail in addition to localised production.

A few respondents recognised that in addition to local production, the proximity of other parts of the food chain were desirable: One respondent commented that, “food processed by a local business would presumably still have fewer ‘food miles’ than food processed centrally by a supermarket”, another two respondents commented that “for different products different scales will apply”. Local Food Businesses were particularly of the opinion that local food should mean it is locally produced rather than locally processed. John Turner of Durham University catering said “we try and get the ‘grown’: soil to plate. So we don’t class local hubs as local. If it’s a finished product, like a sandwich for example, we say 60% of your product has got to be sourced from within 10 miles...[regardless of] the delivery miles into us: That’s what we’d consider local.”

5.3 Distinctions of ‘Local’ as a Spatial Distance or Zone

In the three questionnaires, I asked the people what geographical scale they thought “local food” should primarily refer to, ranging from food that one grows oneself to food grown in the UK. What respondents regarded as the best scale of proximity of production to consumption ranged from “within 20 miles”, to “within the North East” (Q5DLFN, Q14 LFB, Q24Allot.).

People have different opinions as to what 'local food' means. What do you think the term 'local food' should refer to? ONLY TICK ONE (you can give more information in the next question)

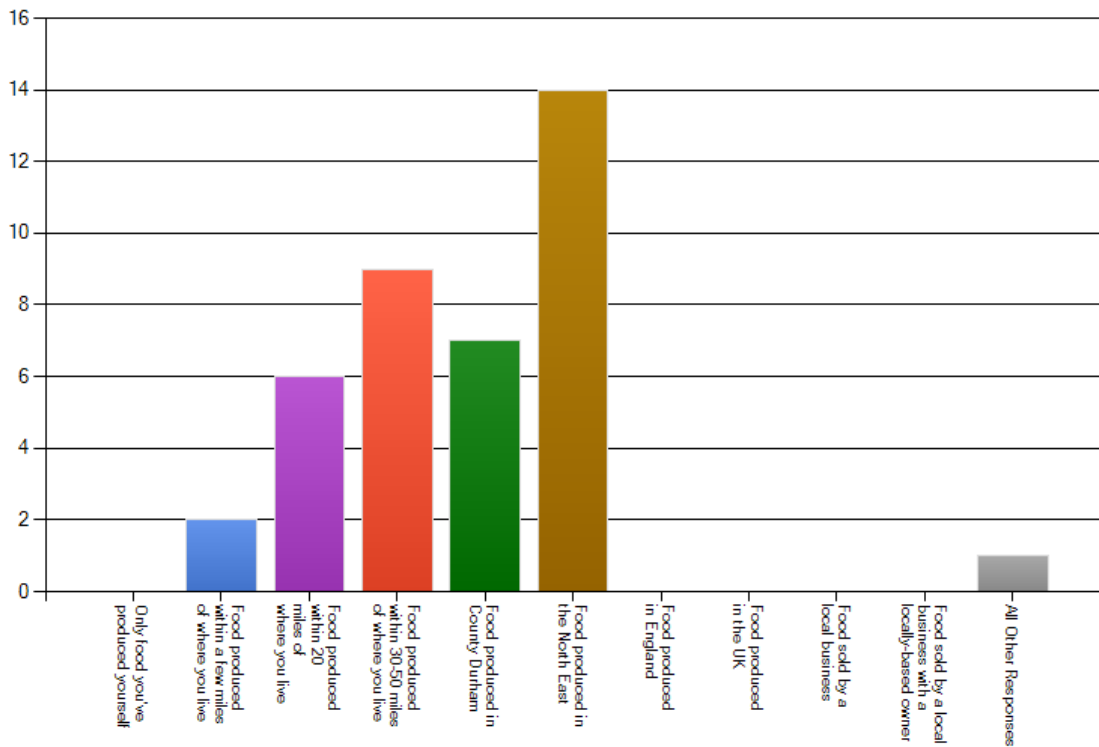


Figure 5.1: DLFN: Defining a geographic area for local food

Most DLFN member respondents thought that local food should refer to food produced in the North East (fig. 5.1). However, the sum of agreements with the categories 20 miles and 30-50 miles outweighs agreement for the North East category. Less than a quarter of people identified County Durham as an ideal boundary.

Basing the Network on the County Durham zone and featuring ‘Durham’ in its title, despite this label seemingly not being a popular marker of local food for members, does set them apart from any other groups such as Northumbria Larder, or Love Food which covers the North Pennine Dales. Although the association with the County boundary itself is unpopular, it does fit with popular conceptions of appropriate proximity, as it is near to 50 miles East to West and 30 miles from the northern to the southern border. Collaborators often commented on the strong local food sectors in Yorkshire and Cumbria, whilst Durham has a relatively weak local food identity.

People have different opinions as to what 'local food' means. What do you think the term 'local food' should refer to? Choose the one that fits the best.

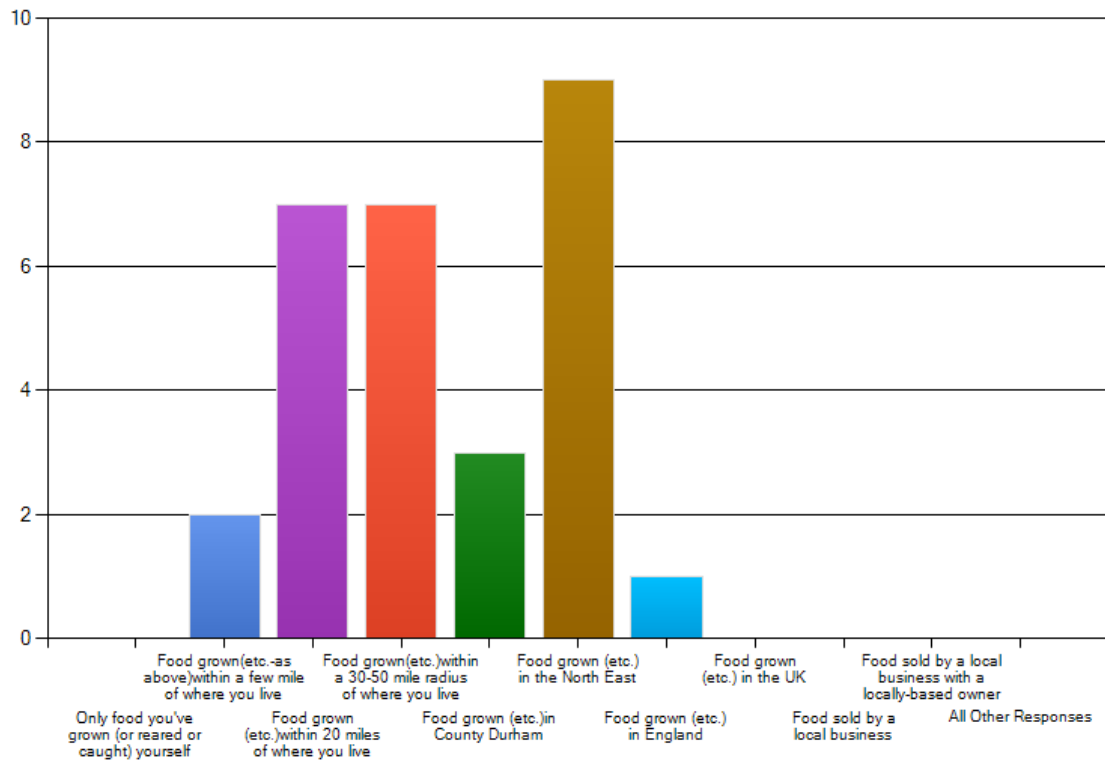


Figure 5.2: Allotment Holders: Defining a geographic area for local food

Illustrated above (fig. 5.2), many allotment questionnaire respondents, similarly to DLFN, think that local food should refer to food in the North East. Although, again, the combined answers of 20 and 30-50 miles gained the most acceptance. The main contrast from DLFN is that more allotment holders thought that local food should refer to food grown within 20 miles, and less thought that it should refer to County Durham than DLFN members.

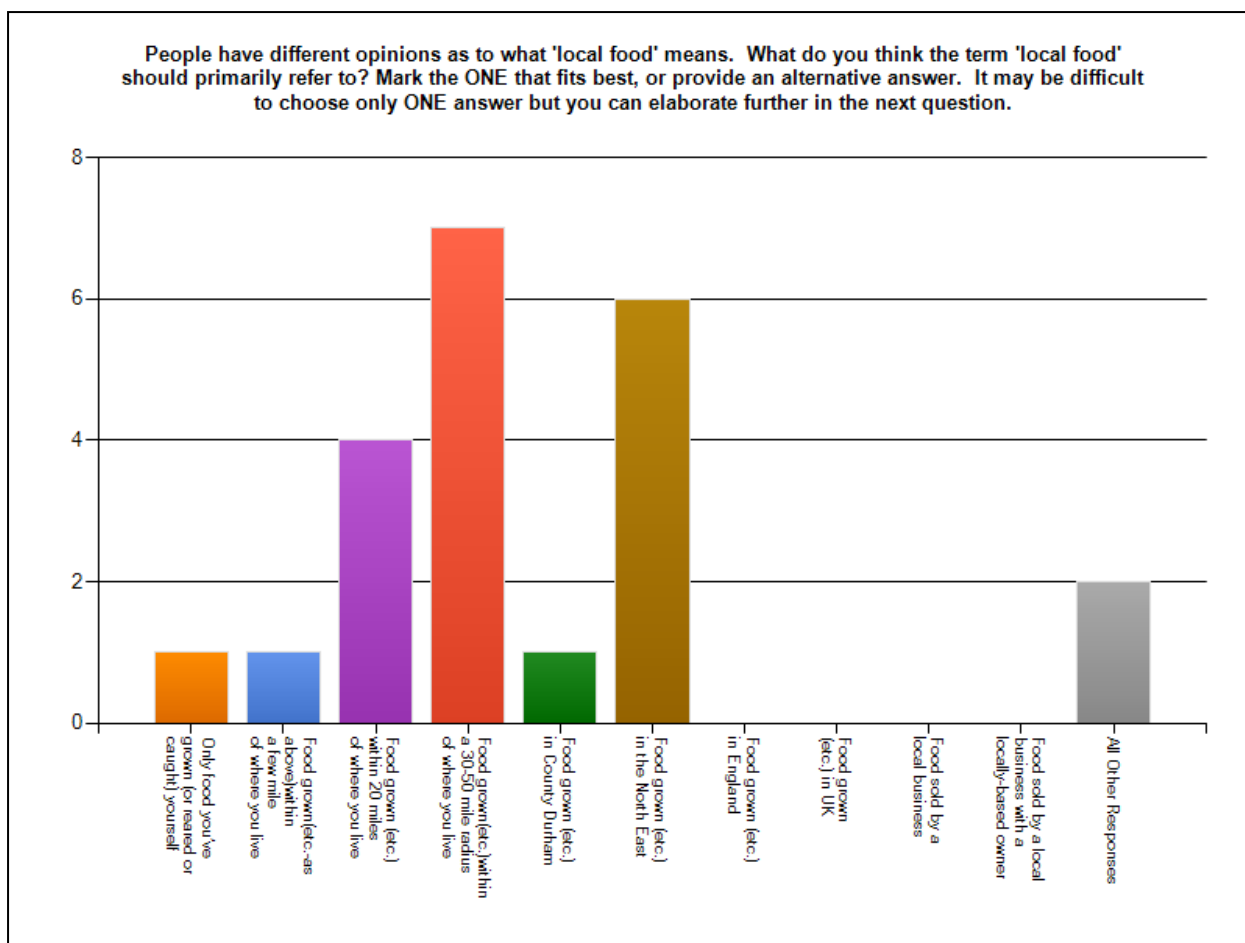


Figure 5.3: Local Food Businesses Personnel: Defining a geographic area for local food

Across the groups, just over one tenth of respondents from all groups felt that the county boundary aligned with their conception of local food. This feeling was strongest for the local food businesses as they instead preferred the notions of 20 or 30-50 miles (fig. 5.3). This may be due to two factors: Although these distances may be similar to the distance to the county boundary for people living in Durham City (as it is quite central), they may not be for those close to the boundary. Secondly, some of my interviewees mentioned that the disassociation of the term ‘local food’ from political territories such as ‘County Durham’, compared to the connotations of ‘welsh lamb’ for example, may reflect the lack of a strong brand for Durham food.

Wilf Richards explained why he thought that the term ‘local food’ should apply to ‘food grown within 20 miles’, based on Tim Lang’s research about making food sustainable.

“Food that travels more than that, the amount of fossil fuels and energy going into that - he described that as unsustainable. It’s creating too much CO₂...Inevitably the more food is moved about; if it is grown in one place and

moved somewhere else and processed once and then moved somewhere else and processed again and then moved and packaged or moved somewhere else and then cooked and then tinned...every time that is happening there's more and more energy required and all those things depend upon fossil fuels."

Jill Essam suggested that local food should be produced within a 30-50 mile limit, as these are the parameters for farmers' markets. She commented that this is only applicable for, "things that *can* be grow in your local area", such as leeks and root vegetables that were traditionally grown here. "I think it's more complicated than food miles alone:...It's so much a social thing as well and it can do a lot to bring local communities together."

Caroline Tweddle of Acorn Dairy alerted me to complications with the distance-based concepts commonly applied to distinguish local food, such as food miles. Caroline thinks that when consumers refer to food miles they are mostly thinking about local food and local employment. However for those who consider the significance of food miles to be the associated GHG emissions, Caroline suggested that perhaps it should be taken into account that emissions are less per mile when travelled at a faster, more constant speed, such as on a motorway compared to country lanes for instance. Caroline considers not only the miles travelled, but the road infrastructure when considering transport costs. Being close to the A1, she says, allows them to reach their customers quickly and more cheaply.

John Turner emphasised how the proximity of what counts as 'local' varies depending on the product: "It's got to be local *for that product*, because the most local sandwich producer that is able to match our needs and who applied to supply us is based in Bradford. So by definition he's the nearest coming in." Caroline Tweddle thought similarly: "My definition of local, rather than just putting a mileage on it; it's the closest producer of *that product* to you – which could still be the South coast, or Scotland or Ireland." Given this problem with applying a maximum radius to what can be considered local, I suggest that a more useful concept of local food takes into account the context of the wider market and should include *the nearest producers selling that product relatively locally to the consumer*. In the case of wheat for instance, I suggest, this is particularly important to take into account the wider market as wheat producers very rarely supply local markets, often selling nationally and internationally. As far as I am aware, there are no local flour mills in County Durham, let alone mills sourcing local grain. Hence, given this new distinction, mills in Yorkshire and Northumberland, which process grain grown local to them, should be considered to be local

flour producers by consumers in County Durham. The prioritisation of distance as a quantitative, absolute indication of localness, would otherwise exclude these from the classification of local food. This had important implications for compiling the local food directory for the website, which I discuss further below.

One thing that people in the local food scene have a consensus upon is that local food is about proximity. Sometimes this was expressed as a social or metaphorical closeness, whilst others expressed it as a linear distance, a certain number of road miles, or as a radius, whilst others chose to conceptualise it in terms of the county or region. Hardly any references were made to the zone of local as relative to a local ecosystem or bioregion, suggesting a social or political significance of local, rather than a classification of space in ecological terms.

5.4 Meanings of Local Food Beyond ‘Proximity Between Producer and Consumer’

Although several allotment questionnaire respondents thought that local food should only refer to the minimisation of the distance between production and consumption, many said that local food also connotes local ownership, small scale production, direct selling, low intensity production and organic methods. A few people commented that local food is fresh, unpackaged, local varieties of produce and local cuisines, uses local knowledge, and is associated with ethics such as animal welfare and land management (Q25Allot.).

For DLFN members, local food also means much more than just proximity (Q6DLFN). I asked them what else “makes food ‘local food’” and suggested that they may want to refer to “a type of ownership, scale of production or production method” – examples which did seem to influence answers. Over a quarter of respondents did not answer the question, whereas nearly all responded to the previous question which asked them to define the spatial range that local food should extend to. Respondents stressed that their answers were ideals and preferences, suggesting that in reality much food marketed as local food does not fit in with their ideal of what it should be. Below I list themes from open responses, with the most frequently expressed characteristics listed first:

- Produced in certain ways including: pro-organic, less intensive, promoting biodiversity, low-input, permaculture, high animal welfare, free range, ‘green’, low carbon footprint, environmentally friendly.

- Locally owned, and that the owner should live locally, or that the business should be ‘family owned’.
- Small or medium scale businesses.
- Simple supply chains or direct selling with limited involvement of middlemen.
- Social ethics were also deemed to be important, including equitable social and labour practises, socially just and ethical attitudes to the market, especially a fair wage for the producers. Co-operative ownership, involving the community and improving human health through production were also mentioned.
- The products sold should have limited processing.
- With regard to travel, they mentioned ‘food miles’.
- Include local traditions such as cuisine and regional specialities.
- Confer with ‘sense of place’.
- Transparent, traceable food chain.

The DLFN welcome email which is sent to new members provides the following explanation of the purpose of the group, including many appeals to the interests of respondents mentioned above. Climate change and peak oil discourses are expressed more explicitly than DLFN members expressed themselves:

“The purpose of the Durham Local Food Network is to put local food enthusiasts in Durham in touch with each other. Its all about encouraging organic food, small scale food, low food miles, food that does not contribute significantly to climate change, food that does not require vast excessive use of fossil fuels, food that is local, food that is honest, food that has a connection to the land of Durham.”

Business questionnaire respondents were noticeably more disparate in their definitions of local food beyond proximity (Q15LFB). Nearly half of the local food businesses thought that local food should solely be defined by the proximity of a producer to their consumer. Some business personnel emphasised how the products of local businesses which process non-local ingredients should not be considered to be local food. Many stressed how local businesses that sell food, in other words *local food businesses* are confused with *local food* businesses. The former describing the business as local, the latter describing the food as local. Business respondents also complained about restaurants, pubs and cafes, in particular, which tend to exploit the term, and businesses which are dishonest about the provenance of their food. For instance, some restaurants which claim to use local food on their menus, are believed to be

referring to the proximity of their local wholesaler/supplier or even supermarket. Some said that the local food should not be defined by too tight a geographic area because they are not useful for people living near the boundaries, and that a better definition would be “produced as near as possible”.

Some business personnel said that local food should be locally owned and small scale, and others said that local food must be processed and packaged within the locality. They also said that local food should have ‘a traceable source’, and that local food businesses should be honest about origin by being transparent. One respondent suggested that local food caterers and retailers should source 75% of their food locally to qualify as a local food business. For another, quality alone was the only other defining factor of local food; for another it was about ethos.

Caroline Tweddle thought that ‘local’ should refer to, “food road miles, provenance, local employment and economy”, but that it should not be “confused” with other aspects such as organic, scale of business, or quality for which businesses should use other terms in addition to the ‘local’ descriptor. For John Turner, food miles includes taking into account all the carbon associated from ground to plate; including checking inputs for production such as where nitrate fertilisers, feed and other inputs are coming from, as well as processing and delivery mileage. John also commented on how ‘food miles’ also means “helping the local economy”.

5.5 Local Food as an ‘Alternative’ Space in Relation to a ‘Conventional’ food system

Definitions of local food, often portray how it is conceptualised in relation to the ‘conventional’ food system. The bracketing of ‘alternative’ as opposed to conventional food systems connotes an othering from, and a decentring from, a normative consumer space. Holloway *et al.* (2007:2) have reviewed how alternative food networks have been configured as separate by some authors, who stress the contrary or opposed economic, geographical and sociological structures to varying degrees. For example, Pratt (2007) considers it “essential to distinguish between those quality foodstuffs that have provided some autonomy in the way people gain their livelihoods, and those that have been produced and/or sold by the major corporations” (298). Kneafsey *et al.* (2008) suggest that efforts to encourage alternative food supply arrangements allows people to address their concerns about, and practically critique,

dominant systems of food provision. Pratt (2007) considers the transformative political potential of alternative food movements, stressing that they are a “*reaction* to the real and perceived trends within the ‘mainstream’ food industry...The alternative food chains...emerged in parallel with the revolutions in farming and processing; their values...emerge as a counterpoint to industrial agriculture and commodification” (297). An investigation into the extent to which local food activists in County Durham seek to go beyond exposing the ills of dominant systems, to actively subvert and undermine such systems would require further research.

Kneafsey *et al* (2008:169) found that strong feelings of frustration were often directed at supermarkets “as the frontline or manifestation of the opacity of the food system”. Similarly, I frequently experienced instances of consumers disassociating ‘local food’ from the mainstream, polarizing sources of local food and ‘the supermarkets’, and although British food was often purchased in supermarkets, nobody explicitly mentioned that they bought local food from supermarkets. Hulme (2009) illustrates how climate change, the construct, is variously employed for scientific, economic, political and social agendas. He argues that, socially, climate change has been used as an expression of a manifestation of the “nefarious practices of globalisation” (2009:xxvii). Likewise, I did find that the conventional food system is objectified and conceptualised, often as a manifestation of various nefarious practices, pitted in diametrical opposition to practices of localised systems.

However, Pratt (2007) and Kneafsey *et al* (2008) both suggest that binary analyses of ‘alternative’ and ‘conventional’ food systems are problematic. Ilbery and Maye (2005) suggest that the delimitations between ‘alternative’ and ‘conventional’ food supply chains are often blurred and they are better characterised as ‘hybrid spaces’. Local food does not necessarily need to be viewed in opposition to the mainstream food system but does show a distinct enough contrast, and is commonly distinguished by those within the scene to merit separate analysis.

5.6 Radical ‘Alternative’ and Conservative ‘Reactionary’ Spaces of Local Food

Food can be used to express a wide range of ethical beliefs about how it links us to our world: our bodies and companions, global politics, our landscape, cultural heritage, and the natural environment. Localisation has been described as “a process which reverses the trend of globalisation by discriminating in favour of the local” (Hines, 2000). Holloway & Kneafsey

(2000) suggest that farmers markets – and I suggest local food in County Durham – are spaces which can be considered as simultaneously ‘alternative’ and ‘reactionary’. Narratives of local food vary from the radical and transformative to the retrograde. People “can circumvent the consumption spaces constructed by powerful actors in the food chain” (*ibid.*: 293), challenging the dominance of corporate retail, specifically the productivist supermarket-agriculture nexus, the global market, and well as corporate ideals and institutions. For instance, Mike Tones said, “There are very few people taking into account whole life costs of products... I’m quite critical of the supermarket movement, which has been – despite their vigorous protestations – hugely damaging to farming industry”.

Simultaneously the local food scene can be a space within which nostalgic and conservative notions of place and identity occur, where people seek to restore and revive ways of the past or simply as a continuation of the past. For example, at a meeting of local food stakeholders in Darlington a local resident remarked on the local food in the town: “Other places are having to rediscover this local food place, but Darlington has always had it. It’s [supporting the local food sector is] just about maintaining and raising awareness of what is there”. Within the scene, collaborators commonly expressed narratives of a return, highlighted by frequent reference to reskilling, reconnection, revival of traditions and so forth, which could be considered both alternative and conservative. I think these narratives are unified by the sense of departure from the current dominant system. Although differing in degrees of transgression or subversion, crucially both types of narrative draw upon notions of cooperation and connectedness and allow the consumer to express ethics of care for others and the environment.

5.7 Designing the Local Food Criteria for the DLF Website’s Local Food Directory

The DLF website aims to promote and stimulate the local food sector in County Durham by increasing the number of producers selling locally, the number of processors, retailers and caterers using locally produced food, and the number of consumers of local food. As part of the website team I have contributed to compiling a local food directory. To conclude this chapter, as an illustration of the complexity of the task of assimilating and reconciling the different meanings of local food, I outline the complications DLF website team encountered

when trying to decide who to include in the local food directory - a process which allowed me to explore the priorities and boundaries in the meanings employed by the team.

We primarily developed four criteria to designate who to include in the local food business directory. The original criteria take account of four aspects which bring the food chain and food economy as close to the consumer as possible. First, the business is *located within County Durham or a neighbouring county if the businesses products are rare are not available within County Durham*. Second, the business is *owned by a resident of County Durham*. Third, they produce or use food which has been *produced within County Durham*, which, fourth, they *distribute within the County*. Given the conclusion mentioned earlier that local food is more useful as a relative, rather than absolute concept, I develop these criteria further here. Currently, they would exclude some businesses who sell the nearest of a particular type of local food to customers in County Durham, such as flour from locally grown wheat.

In order to increase the usefulness of the local food directory to consumers wishing to source local food, I have suggested widening the criteria, and hence expanding DLF website's classification of what qualifies as a local food business. This would mean that rather than not including any local flour mills, for instance, in the directory, as none are available within the County, we would include the *most local* flour available. At the time of writing, the website team is still negotiating the addition of this clause to the criteria. I suggest we incorporate two extensions to the existing criteria:

- Businesses in which locally produced food constitutes a significant proportion of their end products and which are one of the nearest businesses selling that product to consumers in County Durham.
- Exceptions may be made to entrants who do not fulfill the criteria of sourcing a 'substantial amount' of local produce. This may be made when an enterprise sources some (more than a negligible amount) local produce and is committed to doing so above and beyond its competitors, but is restricted by a lack of local products or resources available, and clearly demonstrates an effort to source more locally produced food in the very near future.

5.8 Chapter Summary

In summary, this chapter has reviewed the contestations over what exactly 'local food' entails by examining the meanings, narratives and agendas of local people. I argue that the diversity of understandings can be seen to increase the adaptive capacity to learn from adjust to change, towards greater socio-ecological resilience. The diversity of opinions of those within DLFN demonstrates its wide appeal.

I have discussed the misleading claims of 'local food' that some businesses have been accused of making. Whilst some think that the use of the word should be regulated, others argue that the disagreement is purely one of degree. Local food business interviewees suggested that greater transparency of business practices could overcome the need for an agreed definition.

Characteristics of local food products are also highly contested as they portray the values the consumer feels is important to them. Some descriptions of local food focus on distance between producer and consumer, specific methods of food production such as small scale farms, sustainable methods of production and business ownership. Ethical, economic and geographical factors were highly importance to people. For instance farms with high animal welfare, which provide jobs for local people, and have a 20-50 mile radius of distribution were often mentioned. Another reason a definition is so hard to arrive at is that localness varies for products and in relation to the location of the individual consumer.

The extent to which local food is considered in relative terms to a conventional mainstream food system is debateable. Whilst rhetorically, local food enthusiasts often stigmatise supermarkets, representing them as the antithesis of local food, I showed how the meanings of local food are plural, and diverge to provide an indiscrete, less problematic framing of the plurality of concepts about local food. The local food system is simultaneously considered as reactionary and conservative. Many consider the growth in popularity of local food as a return to former, traditional ways whereas others see it as a political statement in opposition to the status quo of the dominant food system.

Chapter 6

Motivations for Food System Localisation

Its advocates extol local food as a “powerful solution-multiplier” with “immense benefits” (Norberg-Hodge *et al.* back cover). Protecting agricultural diversity; improving the health of consumers; lowering the price of food; reducing transport, chemicals and GHG emissions; increasing food security and lessening the need for packaging and artificial additives - are just a few highlighted by Norberg-Hodge *et al.* (2002). Increasing the capacity of the local food scene, however, ultimately requires us to engage and inspire others to join the cause. Hence, within this chapter I analyse the main motivations of individuals within the scene to produce, process, retail and consume local food.

Given that DLFN members tend also to be substantial consumers of local food (DLFNQ10, see appendix E), I compare their motivations to what businesses think their customers’ motivations are. I hope that by offering a multi-perspective analysis of the motivational factors behind local food practices, I might help local grassroots initiatives, businesses and local authorities to support members of the local food scene in realising their aspirations.

6.1 Which Aspects of Food Localisation are Appealing to Local Organisations?

At a consultation meeting for organisations and individuals with an interest or involvement in local food in County Durham organised by Liz Charles (PhD forthcoming) during 2010, Durham Rural Community Council, stakeholder representatives were present from the following organisations: Durham County Council (DCC), the Primary Care Trust (PCT), Groundwork North East, the British Trust for Conservation Volunteers (BTCV), the Soil Association, the North Pennines AONB (Area of Outstanding Natural Beauty), Durham Wildlife Trust, DLFN, Climate Durham, and Teesdale Marketing. A survey conducted on these organisations found that all respondents thought that “supporting local food businesses” was important to them. These and other participants in the consultation also highlighted the following factors as important: food security, climate change, healthy eating, lowering greenhouse gases, education, community cohesion, and tourism. This list shows the range of different policy areas with which local food interacts.

Below, I address, in turn, my findings about motivating and inhibiting factors affecting local food businesses personnel, allotment holders and DLFN members.

6.2 Local Food Businesses' Motivations for Producing and Using Local Food

During the interviews I asked local food producers how they would need to adapt their business if climate change caused more extreme weather conditions. For some this scenario was very real and they said that they were already experiencing changes. For example, Jamie Bond explained that his father says that he is experiencing more variability in the weather, that it is now possible to grow crops such as maize that would not have grown in Durham before, and in the last few years their land has been affected by droughts. He went on to say:

We'd change crops...more drought-suited crops, we'd change how we planted. We'd probably have less livestock in terms of head per acreage. If we had drastically less rainfall, we'd be able to do a lot less...It would change what we did and what we grew in good ways and bad ways. It would bring other crops into our range. But for us specifically, our soil is quite clayey, it cracks easily and loses moisture quickly so it wouldn't be great for us.

Likewise, Caroline Tweddle, when asked about whether they had any plans for what they would need to do, also told me about the lack of rain recently:

We've been very short of rain. Currently [August 2010], we have one day's worth of grass ahead of what the cows need, because the grasses haven't been growing, it's been so dry and warm. So all we will have to do is reduce cow numbers and production will go down.

In addition to reducing farm output, Caroline said that people would also have to change their diets:

If that happens I would suggest farming organically and eating what is available and accepting that it's going to cost more. More of our disposable income will be spent on food and not on getting our hair dyed and swish cars. It's coming at some point, it's just a matter of when.

Mike Tones also said that the climate has changed “very significantly”:

We don't get the snows or the harsh winters like we used to. I don't know how it's going to change, or impact – it depends...Actually, I think the North of England might come off quite well, whereas everyone else will be looking at where to go.

In the LFB questionnaire I asked the businesses to volunteer their three main motivations for working with local food (Q37LFB). These were the top answers:

- The quality of their food product
- Supporting local people, the local labour force, local and rural economies
- Being able to make a fair living

Next, the following were listed as important motivations: Provenance, a link to the land, traceability, taste and freshness, fewer food miles and fewer transport costs, the unique cuisine, tradition, customer satisfaction, connection to the community and higher business security. Factors relating to environmental sustainability and climate change were only mentioned by two out of 19 respondents.

Through interviews I was able to ask interviewees about their motivations in more depth. Caroline Tweddle said that selling their own milk to retailers rather than to wholesalers is primarily motivated by, “economic sense”, as they tap into the final retail price rather than the farm gate price offered by wholesalers. Their motivation to convert to organic was motivated primarily by need for a marketing edge in the milk market and by a desire to farm less intensively to increase animal welfare. Now they have converted, they have the confidence that they are farming in the “right way” and they would not change back. Unlike most dairy farmers, they are happy to show people around. Caroline believes that supplying local people also allows them to provide transparency about provenance, to bond with the customers and to build trust, all of which promote loyalty among customers. The shorter distances their products travel reduce the environmental and financial costs of energy usage, as well as minimising payments to distributors. Caroline said that demand for their product would be lower further away as the additional transportation needed would inflate prices. Milk is particularly suited to local sale as it is a heavy, low profit margin, short-life product. By selling directly Acorn Dairy are also less affected by price wars between competing dairies as they are differentiated by providing quality, organic and local products, so price is not their main selling point. Conducting their own marketing and branding does however ultimately incur its own costs.

For Wilf Richards, permaculture ethics of people care, earth care and limiting consumption underpin his production practices. “We try and minimise food miles, so we’re not just trying to prepare ourselves for climate change; we’re trying to mitigate it”. Wilf described how Abundant Earth could not supply large scale retailers as they would not be able to fulfil their demands of what crop to grow, how to grow it and how much to grow. He added that they would not want to lose the direct contact with their customers and make less money than they get by selling direct to the customers.

Jill Essam told me that demonstrating sustainability through education is her main objective, and financial gain from production is less so: “We’re not very commercial, it’s hard work, we don’t make anything out of it! You would do things very differently if you wanted to make the maximum amount of money out of it.” Like several producers, she expressed how sometimes choices had to be made between sourcing organic *or* local inputs. They used to get organic grain locally, but since their supplier stopped producing it and there are no others nearby, they would need to buy it from too far away to justify the transportation, so now they use a local farmer rather than buying organic.

Mike Tones is committed to environmental and economically sustainable practices: “Sustainability has always been a part of what I do and because of that ethic, that’s why I produce lamb how I do. My values drive the way I operate”. He said that sourcing, butchering and selling locally saves him time, money and is convenient and leads to a high quality, fresh product. Mike Tones would like to sell all of his lamb direct, rather than selling his lamb at farmers’ markets or to a dealer who then sells on to wherever the market is, depending on infrastructures and incentives. Mike does not want to be part of a supply chain, not even to a shop, preferring to sell direct to the end consumer; he also said that he thinks more people are slaughtering, marketing and selling their own now. The time and effort that it would take to build a customer base to market more of his own lamb prevents Mike from selling more meat direct. This lack of resources limiting capacity for direct sales seems to be a reoccurring theme for small businesses. He tries to source everything locally, not just in farming: “I’m a firm believer in sustainability, and buying local, and sustaining a local community”. Mike described the prioritisation of local as a “mindset”. He said that he has an ethic to farm sustainably: “as organically as we can...on our own standards of welfare, with little artificial input... We’re not a great believer in chemicals, but of course we have to have certain... wormer and the rest of it... a lot of farmers will inject protection from a whole rack

of clostridium bacterial diseases...but I don't do it...every year I probably lose one lamb from one of those clostridial diseases”.

Jamie Bond prefers to source local inputs as it can provide higher transparency, and can be cheaper, greener and easier. His motivations in being a local food producer and retailer stem from a desire for the production of quality products, traditional animal husbandry and land management including the keeping of traditional breeds as well as support the local economy and to interact with individual consumers. Supermarkets looking to develop a local range have approached the Bonds, who declined the offer. Jamie is sceptical about the food miles that would accrue from produce going to supermarket distribution centres before being returned to the area to be sold as local food, saying that such food may be “locally produced food but it has travelled a thousand miles before you can put it in your trolley- what's the point!” Jamie also said:

“I don't think we'd go to supermarkets on principle... It sounds quite pretentious but I like to think that we aren't just about profit and we try and do things the right way...The perception is [amongst people in general] that supermarkets will essentially do anything they can to screw you as a producer...I just think they're jumping on the bandwagon because they want to be able to say 'oh yes, we are now selling local food.’”

Questions about ethics and morals commonly instigated conversations with interviewees about their high animal welfare standards; the Bonds even nurse deformed animals and go, “above and beyond free range”. Jamie said that peak oil was not a specific motivation for him, describing it as a future push, rather than current pull factor, although in the long term he thinks farming will become less intensive:

“...because the cost of oil-derived fertilisers is stratospheric in essence. When oil is \$250 a barrel, they won't be able to afford to spread it on their field, and that time's not far off. Maybe 20 years, maybe sooner. All we need is a war somewhere and that'll be it.”

Jamie added that embedded within consumer concerns over sustainability and food miles, for example, were concepts to do with finite resources, but that people were not necessarily thinking about that in terms of peak oil.

In the last 10 years, Durham University have increasingly prioritised local sourcing and now consider themselves amongst the top, with many universities mimicking their sourcing arrangements and sustainable procurement procedures. As part of their carbon reduction strategy, they have focussed on minimising food miles, which dropped by over 70,000 miles during 2010 simply as a result of rationalising their suppliers down into hubs. They have reduced their reliance on products from overseas and have increased transparency to the students by outlining where their ingredients are coming from on menus and posters. Another main motivation is not just the sourcing of sustainable ingredients but the preservation of culinary expertise. Rationalising to one supplier of milk, for example, has allowed Durham colleges to all pay the same price rather than some paying more, and others paying less. This was “all about balancing the books and then the customer and chefs found out that if they knew where it was grown, you know where it was slaughtered - they could trust the product”. John thinks that the main barrier for the university to source more food locally is the volume they require, but by collaborating, producers can get together and supply the amount needed. “We pay a fair rate, we agree a price; it’s almost like fair-trade for the UK”. John says that producers want to supply the university because it gives them stability, a good price, and because he can promote the business.

6.3 Allotment Holders’ Motivations to Consume Local Food

In the DLFN and allotment questionnaires, I asked people what motivated them to eat local food, by scoring how important 20 factors were to them on a four-point scale from ‘unimportant’ to ‘very important’.

Respondents rated the gastronomic qualities of local food as primary motivators: “freshness”, “quality” and “taste” were on average marked as the most important motivations for allotment holders to eat local food. “Reduced waste and packaging” was marked as the second strongest motivator. Also marked highly were “support for the rural community” support for the local economy”, as well as “fairer price to the farmers and producers”. Further motivators were “fewer food miles”, “provenance”, “health benefits” and “eating with the seasons”. “Lower greenhouse gas emissions” and “in preparation for a post-oil future” were relatively low on peoples’ ratings of importance (Q26Allot.).

6.4 What Do Allotment Holders Enjoy About Having an Allotment?

Assuming people are partly motivated to do what they enjoy, I asked the allotment holders what they enjoy about having an allotment. This question seemed to provoke responses markedly less utilitarian than that overwhelmingly given as the reason for wanting an allotment by those on the waiting list, as a means of food production (Q4Allot.). Answers tended to be about enjoyment due to wellbeing or mind-body experiences (Q18Allot.). The most common answer concerned exercise. Much value was also given to the experience of, and activity around, seeing crops grow and harvesting them, often imbued with a sense of satisfaction, achievement and creativity. Many referred to the relaxation and stress relief, or therapeutic effect associated with the enjoyment of being alone, in the peaceful, calm and beautiful surroundings, and being in contact with nature and outside in the fresh air. Equal appreciation was given to communal aspects such as sharing knowledge, being sociable and making friends. Enjoyment also resulted from the taste and quality of the food produced.

6.5 DLFN Members' Most Important Motivations for Consuming Local

The final question I posed concerning motivations was to see whether local food businesses understood the motivations of local food consumers (Q11DLFN and Q36LFB). Rather than using a representative sample of these businesses' customer bases, I considered DLFN to offer an opportunistic sample, since 40 out of 42 respondents considered themselves to be a local food consumer (fig. E1). The results are shown on the next page (fig. 6.1)

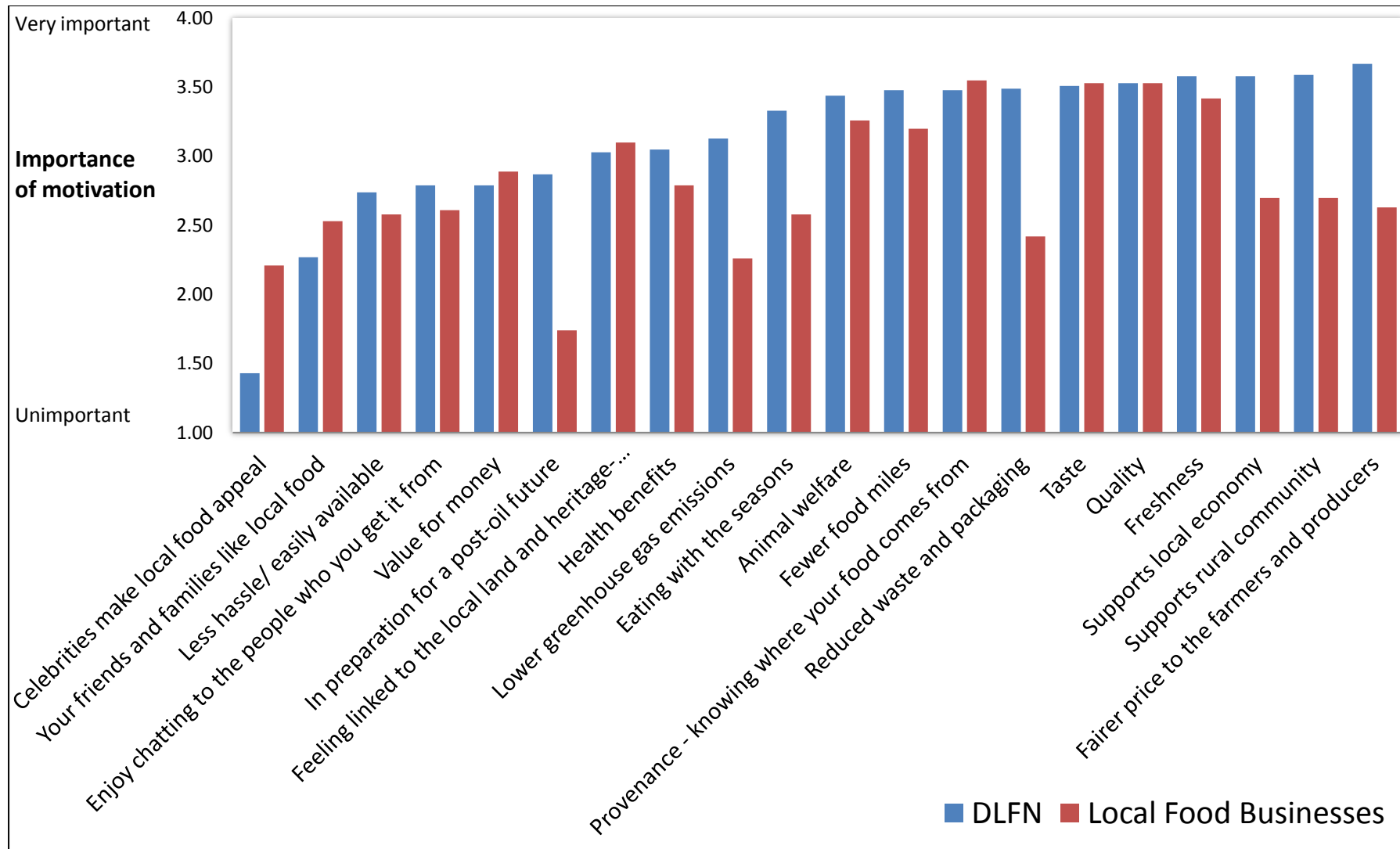


Figure 6.1: DLFN members' importance of motivations to eat local food compared to businesses speculations of their customers' motivations

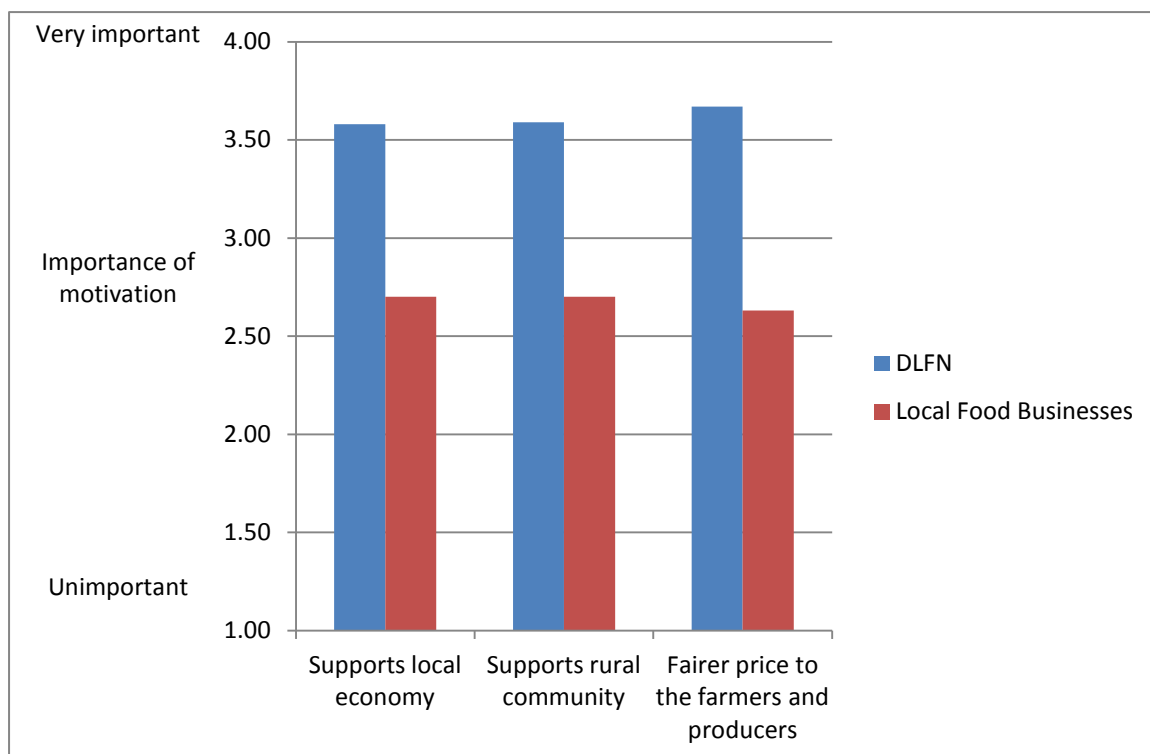


Figure 6.2: DLFN members’ importance of their economic motivations to eat local food compared to local food businesses speculations of their customers’ motivations

Figure 6.2 repeats some of the information displayed in figure 6.1. It shows DLFN respondents’ top motivations to eat local food are to pay a fair price to farmers and producers, and to support the local economy and rural community. Business respondents underestimate the importance of these factors for consumers. This corresponds to the IGD’s (2010) finding that the biggest riser in reasons for supporting local food over the last few years has been support for the local economy: 54% of local food consumers reported a wish to support local producers and farmers, up from 28% in 2006.

The second most important group of motivations for DLFN respondents is freshness, quality and taste. Businesses correctly believe that these factors are amongst the highest motivations of consumers, as several other studies have also found. DEFRA (2011) asked a large sample of UK citizens about their motivations to buy sustainable food. Taste was reported as the top driver. In a study on farmers’ market shoppers in Stratford-upon-Avon, people said they were buying certain products there primarily because of their freshness and quality, although they also expressed a desire to visited the market in order to support ‘home, ‘local, or ‘English’ farmers (Holloway & Kneafsey 2000). Jamie Bond guessed that about half of his customers

were into local food for its taste whereas for the other half chose it was part of a lifestyle choice such as preserving traditional methods of farming.

The next most important motivations for DLFN respondents are reduced waste and packaging, and to eat with the seasons. Businesses consistently underestimated the importance of these factors. Businesses correctly identified the high importance of fewer food miles, provenance and animal welfare, all of which are important to most DLFN respondents.

Businesses thought that their customer's top motivation was "provenance – knowing where their food comes from" - an important factor for consumers, but not top of the list. Compared to the motivations reported by DLFN members, businesses considerably overestimated the extent to which customers eat local food because they think it provides value for money. However, Caroline Tweddle appreciated that local food customers are not motivated by value for money, admitting that their products are not the cheapest, but she stressed that there is a false perception that organic is expensive when the 'sacrifice' amounts to a few extra pence a week for organic milk. Similarly, Mike noted how his customers tend to be, "professional people, not bothered about price. They like the idea of buying direct from the producer, knowing where it's come from and knowing that it's been reared in a particular way...[However] none of that would matter if the product wasn't first class – taste and quality – they say it's fabulous."

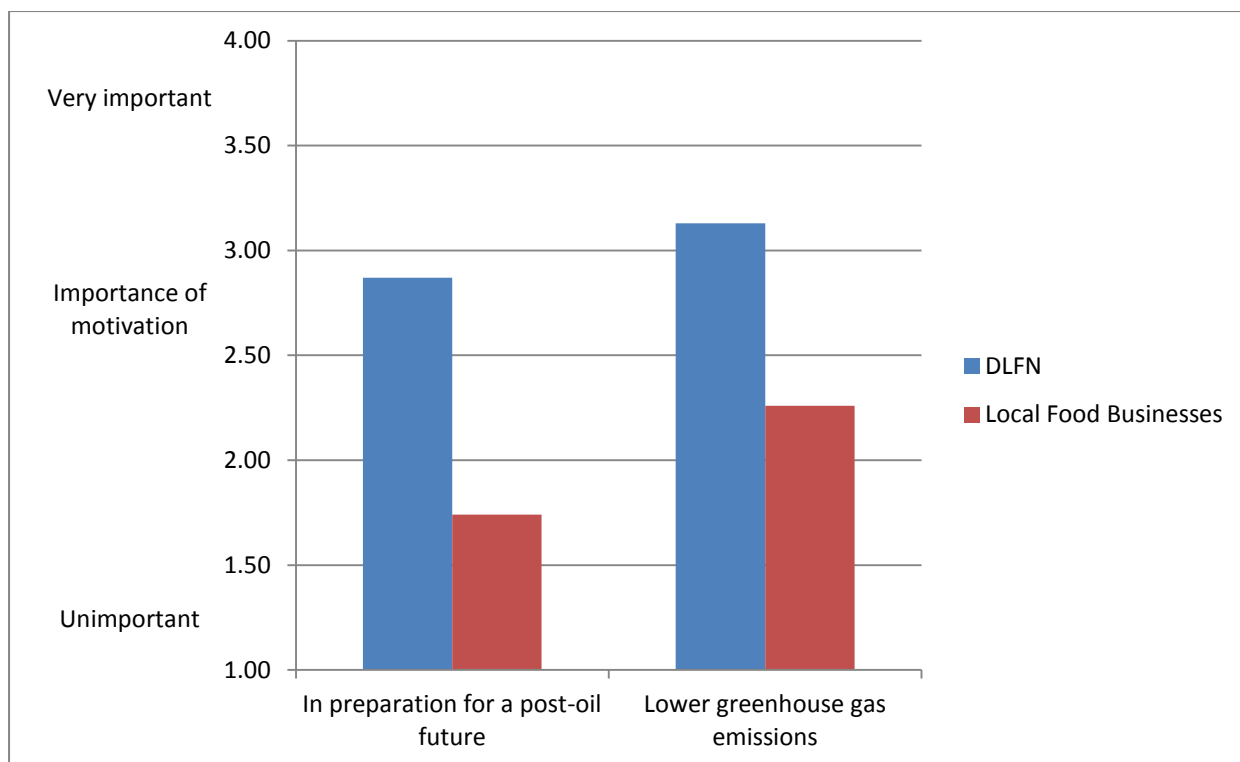


Figure 6.3: DLFN members’ importance of their environmental motivations to eat local food compared to local food businesses speculations of their customers’ motivations

Businesses assumed peak oil to be their customer’s lowest motivation from the list of 20, whilst consumers actually listed this motivation as moderately high (fig. 6.3). Business respondents also significantly underestimated the relative importance of lower greenhouse gas emissions, for their customers. The Fruit Group, DLFN and DLF Website Team all have strong links to the aims of Transition. Even though interest in resilience and energy descent planning are part of the constitutional aims of Transition Durham, they are probably less prevalent among the general membership of these other groups; this is to a large extent also true of permaculture²¹ principles.

While reducing food miles was reported to be a strong motivation for DLFN members, as businesses accurately appreciated about their customers, DLFN members reported many different connotations; higher animal welfare; higher quality and freshness; or reduced waste and inefficiencies involved in hauling produce unnecessarily. The term ‘food miles’ has become common parlance, yet is seemingly associated with other forms of closeness, and not

²¹ See glossary

just levels of greenhouse gas emissions of transport, but nevertheless perhaps useful as a general discursive concept. Mike Tones suggests that his customers' main concern about food miles was transportation of live animals to an abattoir, and was unrelated to CO₂ or energy use. One business collaborator said

“Most of our customers don't have time to think about those. They've got so much going on in their lives that they can cope with the fact that we're not using chemicals...I think a lot of peoples' heads are so crammed full of all the things that they've got to think about when they're buying food that a couple stay there and the rest get lost in the ether.”

Another said, “They're blinkered...peoples' knowledge of sustainability is very weak”, and later added that, “We love the car don't we, so until that's forced upon us, we just think about it when we have to, and then forget about it”. Another collaborator said about peak oil:

I don't think most of them understand it and I don't think climate change is even registered on the consciousness of most of them, which is why we're doing the projects we're doing... So even though that's our motivation, people we're working with – that's not necessarily their motivation...[so] we have to make sure that doesn't become a siege mentality, so we try and focus on the nice bits of it.

As a further example, Caroline Tweddle talks about her experiences teaching children about organic milk in schools:

During school assemblies...I would ask them what they thought organic means, and they would put up their hand and go 'low in fat?', 'low in salt?', 'low in sugar?' They've just got so much going on. They're just bombarded with what they should eat, and I don't think it's just children...A working woman with children, job, possibly some old parents to look after, has a lot to carry around in her head and boxes to tick. The benefits of buying organic milk is just one thing she is thinking about.

6.6 DLFN Members' Less Important Motivations for Consuming Local Food

“Conforming to the preferences of friends and family”, and “enjoying chatting to the people who they get it from” were low motivational factors for both allotment holder and DLFN

questionnaire respondents; business personnel correctly assessed their low levels of importance.

Both allotment holders and DLFN members also rated “hassle /easily available”, and “value for money” low, perhaps suggesting that people tend to disagree with these statements. Businesses were correct in estimating the low importance of less hassle/easily available, but considerably overestimated the importance of value for money.

Whilst most respondents claimed that celebrities were not affecting customers food eating habits, John Turner said that programmes such as River Cottage and Jimmy’s Farm made an impression on students at Durham, and created a demand for free range chicken and eggs.

Mike Tones concurred: *“At one time you would never have had Hugh Fearnley-Whittingstall on the television. He kills animal and butchers them. Having a culture of celebrity chefs returning to what’s real - rather than what people think is real and being driven by the media - that’s been hugely important.”*

I did not list them amongst the 20 motivations suggested in the questionnaires, and food safety or food scares were not mentioned by a single respondent to the questionnaires or in any of the interviews.

In contrast, with the findings above, the graph below (fig. 6.4), from IGD *Shopper Trends 2010* (reproduced in DEFRA 2010b:39) shows the factors found to be influencing UK consumer food product choice. Notice that the main influences were found to be price, nutritional content and brand names.

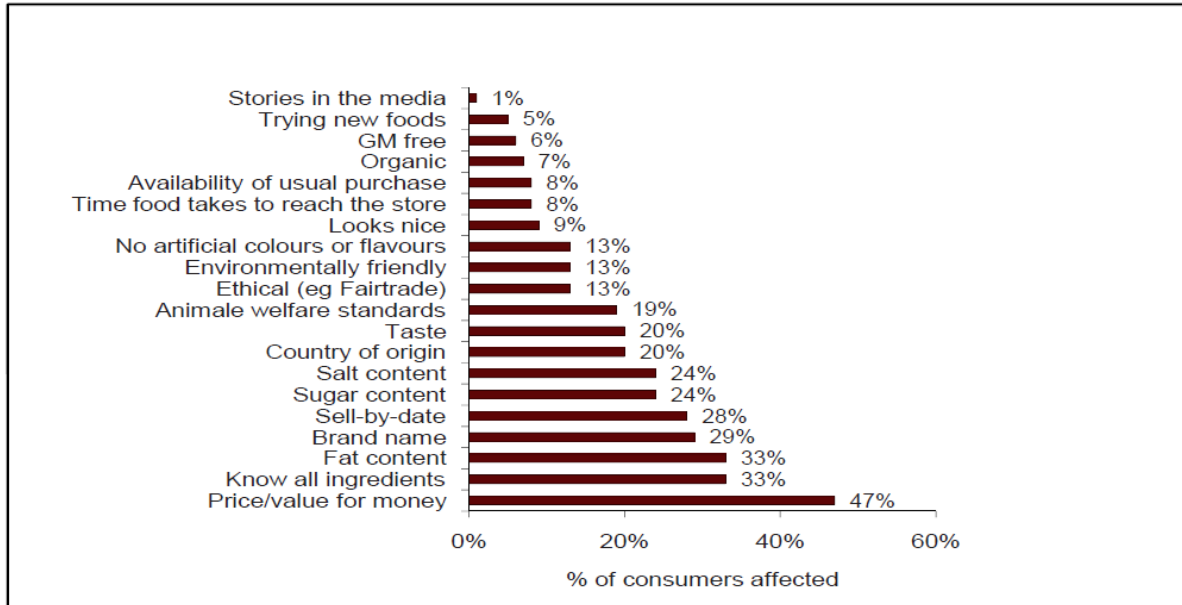


Figure 6.4: Factors influencing consumer product choice in the UK (IGD Shopper Trends, 2010, reproduced in DEFRA 2010b:39).

6.7 Chapter Summary

In summary, gaining an understanding of motivational factors sustaining the local food scene will be crucial in the endeavour to make local food appeal to a wider public, beyond the current scene. The array of motivational factors includes everything from the association of local food with fresh, high quality produce, to deep principles of fairness and mutual support. This study has found that DLFN members (predominantly ‘local food consumers’), are mainly motivated to eat local food in order to support local economies, rural livelihoods and to pay a fair price to farmers, a sentiment which is also very important to local food businesses. Further research would be needed to find out to what extent this is due to the current economic downturn, or whether this motivation will persist long-term. Motivations to do with climate change and peak oil are strong, although they were not found to be a priority for consumers nor local food businesses. Comparing the data of DLFN members’ motivations with that for local food businesses’ estimations of the importance of these same motivational factors for ‘their customers’ indicated that business personnel may not have accurate understandings about consumer motivations. Although, this discrepancy may be due to DLFN being an unrepresentative sample of their customers, or the small sample size, it does give some indication of how local food could be marketed to appeal to customers existing motivations. It depends upon whether DLFN are trying to widen their appeal through marketing that complies with consumers’ existing motivations, or whether they seek to alter peoples’ association of local food to one more aligned with principles of social-ecological resilience.

Chapter 7

Social Relations Sustaining the Local Food Scene

“We are focussed on the end consumer, as opposed to producing the most product at the least cost, which is what a lot of farmers are targeting - and relying on someone [a wholesale buyer] to buy it from them. With talk of 5000 herd dairy units going in Lincolnshire, milk is only going to get cheaper, at the cost of the environment and animal welfare.” Caroline Tweddle, Acorn Dairy.

In addition to individual motivations, the food scene is sustained by connections among groups and individuals. Actors within the local food scene, including suppliers, producers, processors, buyers, retailers, customers, supporters, activists and so forth, can be seen to be interacting vertically, horizontally as well as within each group. Local food systems often involve a more connected web of actors and shorter or simpler links. For example, social connections within the scene are often characterised by direct selling and face-to-face contact, relationships which allow for increased transparency of practices and the traceability of the histories of food.

Jaeger et al. (1993) have showed that social-cultural processes whereby rules, norms, values are shared play a strong role in determining environmental commitment. The New Economics of sustainable consumption model indicates that increased social capital is needed to create a collective will to change (Seyfang 2006). I argue that social connections are key dynamics of the local food scene as mechanisms for building social-ecological and cultural resilience. DLFN and DLF website provide the conditions within which individuals are empowered to interact, allowing for enhanced opportunities for learning and collaborating in order to adjust to change. Additionally, the range and richness of perspectives evident through the plurality of subjectivities and motivations I have attempted to convey, can be shown to lead to the pursuit of various adaptive pathways to greater social-ecological and cultural resilience.

7.1 Transformative capacities

The local food scene also shows signs of transformability, that is, the capacity to support the creation of a fundamentally new food system. Pir (2009) considered the lack of cooperation and political will, in Totnes, to be among the main structural factors restraining the achievement of a critical mass to change food production-consumption arrangements, and regarded grassroots projects as ineffective in transforming the wider food system. However, Pretty, (2002) notes that although farmers markets will not provoke systemic change, such activities may create the right conditions for change. Whilst the local food scene remains a small collective, I believe it shows signs of being the seeds of change, and shows no signs of ceasing to increase its capacities for resilience.

7.2 Social capital of the Local Food Scene

Results from my questionnaire indicate that about a third of members of DLFN are a member of Transition²² Durham. According to Pretty, creating the collective will for change and action is aided by high social capital; that which “implies a likelihood of multiple membership of organizations and good links between groups” (2002:153). Social capital can be considered to be the structure and nature of relations that facilitates cooperation and encourages productive activities. I posit that features of social capital, highlighted by Pretty (2002), are apparent in the practices amongst and between people in the local food scene. These are relations based on trust; fair reciprocity and exchanges; norms; and connected networks and groups. I illustrate these themes through examples of to the social connections of various groups within the local food scene.

7.3 Social Connections of DLFN and DLF website

DLFN questionnaire respondents feel that the main benefit of being a member of DLFN is the ability to staying in touch with one another in order to share news, such as information about local food courses and events. Others think that they benefit by ‘feeling’ connected to the community of members supporting local food (Q19DLFN). Two people commented that that DLFN was about creating a movement: one person commented that they were a member

²² See glossary

to “build critical mass to encourage more local food” and another commented that they enjoy “the ability to say to people who don’t think local food will take off – well look here then!”

DLFN member involvement appears to be high. Nearly three quarters of respondents claimed that they “always read the emails” from DLFN members, whilst a quarter said that they only read some of them. A quarter of respondents have also posted to the group and just less than a quarter of respondents said that they actively support the group and attend events.

There is a high overlap of involvement in the related community groups within the scene (Q18DLFN) suggest the group may contribute to community resilience. There is a significant overlap in membership of DLFN with some other local groups. Out of 39 respondents, 14 were members of Transition Durham and 13 were members of Durham Fruit Group.

Wilf Richards, founder of DLFN, noted that DLFN seems to be changing:

“It’s moving on from being just a network for sharing information about what they are doing, or what they see going on, to people getting together and collaborating and making things happen, new things happen. Whether that be new businesses or things like the fruit tree mapping... They need a project to work on. Like with the fruit project...there’s a reason, a vision, a mission, so people are naturally motivated to make that happen so that’s building up a team...from just virtually knowing each other to actually knowing each other.”

Local food businesses also participate in DLFN. Caroline Tweddle of Acorn Dairy sees DLFN and the local food website as a “way of reaching more customers”. Jamie Bond of New Close Farm was attracted to join DLFN by the ability to make the local food market more transparent:

“I think it’ll be interesting to see what’s going on elsewhere and see if there’s anything we can do within the network that brings something to ourselves. It’s a marketing opportunity to track down people who don’t necessarily know we’re here and maybe we can bring something extra too that isn’t already there.”

Wilf Richards hopes that other local food businesses will see DLFN as “an opportunity to promote their business or gain information that might be appropriate to their business”. Wilf has used the Network to advertise his permaculture, seed saving and fruit tree grafting courses. He remarked how he sent one email out to the Network and as a result his seed

saving course was fully booked. However, Wilf did say that many of the members who work for a local food business do not make use of the facility it provides, and wonders whether this is because they have their own network for their business.

The new DLF website's objective is: "To stimulate and increase knowledge of and use of local food businesses and act as a portal to local food groups and resources" (Durham Local Food Website, 2011). DLFN questionnaire respondents showed their enthusiasm and support for the website, with 37/40 respondents saying that they would use the local food directory, 36/40 people saying they would use the local food events calendar, 33/40 wanting to use the seasonal recipes and 29/40 people being interested in using the wild fruit tree map (Q22DLFN).

7.4 Social Connections among Local Food Businesses

A Farming Futures (2010) survey found that collaboration was considered to be important to UK farmers in. Results showed that 74 percent of farmers think that producers should work more closely with processors and retailers to combat climate change, and 82 percent think farmers should collaborate through buying/sharing cooperatives or knowledge cooperatives to combat climate change. However, Pretty (2002:155) states that "For farmers to invest in collective action and social relations, they must be convinced that the benefits derived from joint approaches will be greater than those from 'going it alone'".

The Bonds of New Close Farm source many of their inputs from "long established friends" on nearby farms: "All our corn comes from three or four miles away and we get hay from a farmer in the middle of Durham who has land next to ours". This saves the Bonds the costs of haulage and Jamie Bond believes that this is common for smaller or more established farms, whereas larger industrialised farms tend to buy and sell on the open market, because the economies of scale make sense. Jamie Bond said how another major advantage of local sourcing was that "We can control the quality of what we grow or what we have grown for us because it's an established relationship that we have with another farmer. Economically, it is good for the area because it could keep that farm going."

Wilf Richards thought that face-to-face contact and "getting to know people" was the main advantage of selling locally as it builds friendship, trust and loyalty. Wilf contrasted the closer relationship he had been able to build with a supplier located in a nearby village, compared to a supplier operating in North Yorkshire: "The wholesaler we use in Yorkshire, I

don't know anyone from that wholesaler, apart from the guy who delivers to us. I've not got a clue who the actual workers there are." Whereas, rather than asking their egg supplier to deliver to them, they go to visit the producer – a connection which can lead to other possibilities, such as swapping skills, resources or news and exchanging produce, compost or tools, for instance.

Mike Tones told me how by using local labour for contracting and repairs he is able to have a personal relationship with the provider which allows for trust and accountability, making the business more economically sustainable:

"The local economy and network of people who can do stuff is really very important. Partly because if you use local people - it's a stable-ish population in my Weardale so therefore - if they make a hash of what they are doing, everybody will know about it and nobody will want them. They have a vested interest in doing a good job when it's local...The more distance you have of the personal relationship between a provider and client the less the incentive to do a good job."

Similarly, Acorn Dairy sources locally where possible, so that they can have a more personal relationship with their suppliers, which increases the quality of service such as the prompt correction of delivery errors.

At Harehope Quarry, they borrow equipment and buy feed off local farmers. Together with having local people as members of the co-op, Jill Essam believes this helps them recycle money locally which multiplies its benefit.

Interviewees told me that it is common for conventional farmers to join a machinery ring, or buy machinery together, but only when it is cost effective to do so as they generally prefer not to share machinery where possible. However, interviewees told me how most producers were generally unwilling to work together: "They're fiercely independent and competitive", one farmer told me: "by working with someone else they're showing a weakness". He told me how farmers dislike interdependency as they associated it with meetings, paperwork and a loss of independence. Caroline Tweddle thinks that the increasing cost of oil and energy will encourage more collaboration among producers, processors, retailers and distributors.

Wholesale market places are often now online rather than physical spaces. For example, Mike described farmers' marts where farmers sell their animals that are being weakened as people increasingly trade on the internet. Mike Tones remarked how such institutions used to provide an opportunity for retailers and producers to meet with one another and network, and was concerned that these "wonderful ways of life are disappearing"

"You have this place where there's a big ring and everybody drive the sheep through and they go to the market every Thursday. You should go up to Hexham and watch it, it's fantastic...people bid from around the ring...the culture, the community of farmers that go there it's the only time they get out! It's a wonderful atmosphere...they talk, the craic is great and they go for a pint in the local pub".

7.5 Social Connections between local food businesses and their customers

There are various compliance scheme labels such as the Red Tractor logo run by Assured Food Standards, and assurance schemes such as the Linking Environment and Farming (LEAF) Marque, the Soil Association Organic Standard, and RSPCA Freedom Food, for example. However, interviewees did not consider these to be too important. John Turner explained why looking for certified organic producers was low on his agenda; "because we're circumnavigating the confidence by having such high provenance requirements...the ethos [of organic] is correct, but I think we can hybrid it into a better system." Due to transparency of production, John knows that one of their beef producers, for example, can not get certification because the farm is next to a golf course, but John knows that it is what he would consider to be organic.

Another interviewee told me how customers to local food outlets tend to make their own judgement, based on trust, of the food they buy, reducing the need for top-down regulation,:

"People don't trust supermarket food. They like the openness and traceability of what we do. We can say to people that we're not registered organic because of the premium that we would have to charge but we just say to people you can come up and have a look round. I mean that probably goes a lot further than just a stamped certification... I think that's why people should use smaller producers, because they do it properly. We mean what it implies, not what the letter of the law says"

Jamie Bond told me how his customers often compared their “hatred” of, and experiences of shopping in supermarkets, with the “fun” of going to New Close Farm Shop, where they enjoy the friendly, personal service and the sociability of shopping there. Jamie told me how the customers often say ““oh we can’t do this at Sainsbury's, or ‘you don’t get this at Tesco's’” and Jamie invites them to ““have a wonder round, see the stuff, get your bag carried to your car””.

New Close, Abundant Earth and Drygill, told me how they do not proactively educate their customers about the benefits of local and sustainable food, as interviewees felt that “they already know”. However, Acorn Dairy and Harehope Quarry feel that education about sustainable food production is important to their business and it is something that Durham University wants to increasingly do.

Jamie bond told me that their independence from wholesalers removes risks such as the buyer changing their terms or price wars with other businesses. Rather, selling to hundreds of end consumers rather than relying on one buyer feels far more secure for them as the risk is spread. Caroline Tweddle also told me how the ‘home market’ is believed to be a more important and reliable customer base to maintain, as the risk is spread between thousands of consumers, rather than one buyer. Abundant Earth further increases their financial security by ensuring their veg. bag customers subscribe for a minimum of a month and that customers are encouraged to not cancel their bag when they go away but instead find someone else to use it.

When I asked Wilf Richards how being a local business prepared Abundant Earth for climate change. Wilf responded:

“It’s partly on-going ‘preparing’ because part of that is about developing a local knowledge and local community and I think as climate change develops, local community will become more important because in theory our use of fossil fuels will decrease, so the ability to transport ourselves or things around the world will decrease.”

For Wilf, networking and promoting local food in general is not only important to him in terms of preparing for climate change and peak oil, but also important for business development:

“There’s a chunk of our veg. bag customers who are involved with the Fruit Group, Transition, the LF website and other projects. I mean, maybe they would anyway, but some of them are our customers because we’ve been out there promoting the concept of local food. So networking is not only important to me in terms of climate change and peak oil but it’s also important to me in terms of business development as well. Building a network up around you is an important part of any business. It conveniently also works for us because of the bigger agenda as well”.

7.6 Social Connections among Consumers, Volunteers and Allotment Holders

Seven out of twenty of the local food business questionnaire respondents said that they accepted volunteers (Q7LFB). Volunteers share skills, experiences, news and learn from one another. For example, whilst volunteering at Abundant Earth one day, I talked to a volunteer who described herself as a ‘permaculture nomad’, travelling from one project to another to inspire, teach, learn and volunteer. She was keen to help me understand permaculture principles, and share with me how she thought our work in the garden that day was related not only to climate change but to the movement we were a part of, working towards a more satisfying, equal future. Such encounters with fellow volunteers can help one feel more connected to the wider scene. Allotments are also social spaces, where many people talk to fellow allotment holders and spend time with their family (Q10Allot.).

7.7 Chapter Summary

Within this chapter I have argued that the local food scene can be regarded as collective action in terms of creating, maintaining and developing social capital. The local food scene involves relationships through which people are empowered to learn from and adjust to change - sharing knowledges, skills and resources, for example. Social connections among people within the scene increase the social-ecological, cultural resilience of the local food system. As there is no regulation of the term ‘local’, the local food consumer needs to be discerning over provenance and conditions of production, requiring transparency from businesses. Ultimately this is a self-regulated system based on trust, fair reciprocity and exchanges, norms and connected networks and groups, facilitated by the connectedness of actors within the scene.

Chapter 8

Potentials for more Local Food Activity

Within this chapter I look at the potential for increasing local food activity in County Durham. First I consider recent changes in the desire and demand for local food, and barriers to increasing demand. Next, I outline collaborators' ideas for how to overcome these barriers to realising the full potential capacities for local food production.

8.1 Desire for Local Food

Asking people about what they think motivates them to choose local food can provide a window both on what may be influencing action and what feelings and values these actions reflect. Findings from a representative sample of Britons found 52 percent of people with a preference want locally grown food and that 46 percent of people prefer food grown in the UK. Furthermore, 70 percent claim that they would prefer to shop locally rather than at an out-of-town supermarket (New Economics Foundation 2003). However, there is often a disparity between these expressed preferences and actual behaviours. There appears to be a wide 'value-action gap' (Blake 1999) between people's attitudes about the importance of a food issue and whether they claim to 'seek' certain foods, and their actual behaviour. For example, a recent DEFRA report (2011: 48) found that although 67 percent of UK respondents claimed that buying food that is "British and in season" is important to them, and 72 percent said they actively seek these foods when shopping, only about a quarter of people reported that they had actually purchased British and in season produce.

A survey conducted on Farmers by Farming Futures (2010) found that a quarter of UK farmers have noticed that their customers are increasingly interested in environmental performance. Over half of farmers surveyed recognised that addressing climate change offers potential business opportunities and almost half were taking action to reduce GHG emissions associated with production.

DLFN has trebled in membership in the last year, from around 100 to 300 members, with relatively little promotion. One DLFN respondent said, "It seems to be doing okay – gently,

gently - don't think rabid campaigning etc [would be] appropriate". Whereas another person said "get bigger until every resident of County Durham is a member!" When asked what prevents them from being more involved in DLFN most members said "time" and "other commitments". Other reasons were difficulties travelling into Durham City where most of the activity currently occurs, and that the Durham City focus puts them off.

Members mainly thought DLFN could improve by having a website and many of them expressed their enthusiasm for the development of the DLF website. Other people thought that DLFN could improve by holding an annual social celebration of local food such as a pot-luck meal or a farm visit. Other suggestions were to increase transparency of who is involved in the running of DLFN and who is the first point of contact. Further suggestions were to "link with other local food groups" and do "more publicity".

Three quarters of DLFN member respondents think that demand for local food will increase in the future and none thought that it would decrease (DLFNQ13). Some said that demand for local food is inevitable due to 'push' factors: "necessity is the mother of invention", and that we will have, "no choice in the matter", because resource constraints will result in a lack of alternatives to locally grown produce and the costs of energy will make supermarkets and imports unsustainable.

Several respondents commented that they considered an increase in demand to depend upon the following 'pull' factors:

- Raising the profile of local food by increasing visibility of local food businesses;
- Increasing public awareness through events;
- Television;
- Encouraging a shift in values towards local resources;
- Encouraging community spirit;
- The support of an "enlightened government";
- Promotion of local food by supermarkets;

8.2 Demand for Local Food

Despite the economic recession, there is an upward trend in the number of people reporting that they have purchased local food recently. According to the latest IDG *Shopper Trends* research, the percentage of people reporting that they have purchased local food in the last month has doubled since 2006 (IDG 2010). The report also found that a higher percentage (30 percent) of people claim to have specifically purchased local produce, than those claiming that they have bought fair trade, organic or high animal welfare products.

Within DLFN, interest in local food does seem to be accompanied by food purchasing and growing. Members reported their diets include a significant proportion of local food (Q10DLFN).

Most local food businesses questionnaire respondents thought that demand for their product has increased over the last 10 years (Q39LFB). The large majority of businesses also thought that the market share of local food is likely to increase in the long term (Q40LFB).

Durham has a long history of domestic²³ food growing, although ‘grow your own’ appears to have experienced a resurgence since 2000 (Q6Allot.). Durham County Council owns and manages 175 allotment sites across the county, with a total of 3,630 plots (Durham County Council 2011), providing one Council owned plot for every 136 residents²⁴. The waiting list for a Council-owned allotment in Durham City area, in summer 2010, included 93 people (Paul Irwin, County Council pers. comm.), in total requiring an area of land approximately two hectares (5 acres) in size. Further to these allotments, sites are also managed by local town and parish councils, and there are many private sites and allotment associations. The average waiting time for all allotments seems to be about a year, although some respondents reported they had been waiting for up to five years (Q3Allot.).

Despite these signs that demand for local food is increasing, the value-action gap would suggest that purchasing is likely to be lower than we might expect compared to the high interest and intent to buy local food. So what are the barriers preventing intent and desire from being translated into action?

²⁴ Based on the resident population of County Durham: 493,470 (Office of National Statistics, 2001)

8.3 Restraints to Increasing Demand

DLFN members were asked why they thought some people do not choose local food. Respondents often referred to the “inconvenience” of shopping at local food retailers (Q12DLFN) - a factor Pir (2009) also found to be a disincentive for alternative purchasing. Supermarkets were said to be somewhere where shoppers can quickly and easily get everything from one place, which is important considering our “busy lives”. Farmers’ markets for instance were thought to be too infrequent and are closed by the time most people finish work. Supermarket shopping was also referred to as a “habit” and a “custom”. Respondents in a UK study by DEFRA (2011) likewise perceived the “habit” of buying certain products to be a major barrier. “Rural” local food shops were also thought to be “less accessible”.

Another common belief of DLFN members and local food business personnel was that demand for local food is constrained by the perceived or actual “expense” of local food, as was also found by Pir (2009) in relation to food in Totnes. Business personnel stressed the need for consumers to understand the hidden costs of some food, and appreciate the true value of what they are buying. One farmer told me that:

“To farm sustainably up here you’ll be bankrupt unless you can sell it at a higher price to someone who knows what they’re buying.”

However, one collaborator commented that local food can be better value for money:

“Cheap, packaged, processed [supermarket] food looks cheaper, but when you look at how it lacks nutritional value and how it doesn’t fill you up for long it soon becomes poor value for money...but most people buy into our industrialised food culture.”

A DLFN respondent said:

“I don’t think that we spend anywhere near as much on food as those who eschew local, mainly because we choose more carefully and cook far more carefully with very little waste and high use of leftovers...For example meat eaters should look at shin or skirt, the cheaper cuts are beautiful to eat but no supermarket sells them.”

I found local food to have strong class-based connotations which are believed to be inhibiting the spread of the scene and customer base. Pratt (2007) considers the transformative potential of alternative food movements believing them to have “revealed to a wider public a great deal about the agro-industrial food system...and provided a constant critique of its operations” (299). CPRE (2001) argues that local foods are effective as a means of tackling social exclusion. However I found that collaborators generally associated Durham’s local food scene with the middle classes, lacking a wider appeal and benefit, and in my general experience, members of the public often dismiss local food as being a middle class fad. One business in County Durham has lower sales within the County than in North Yorkshire and Newcastle. The business owner suggested that this may be due to affluence: “*Hartlepool, Peterlee, all those old mining areas there – are they interested in local food? I don’t know*”. Mike also said his customers were also mainly professionals, and were not concerned about cost. Jamie Bond also said that their customers tend to be middle class professionals due to the perceived expense, even though local food can be affordable. However he added that some working class, often older people who live locally walk to the shop.

One collaborator referenced how DLFN needs to widen the appeal of local food beyond its niche:

“It’s largely a network for the middle-class/alternative lifestylers and seems to have few connections with the majority of the residents of County Durham who do not fall into this category, [n]or with popular local food businesses like Harry Coates Butchers or ethical up-scaled businesses like Riverford Box Scheme. It’s a challenge bringing everyone on board as Co. Durham is very different from counties like Devon. But it’s the only way to make the network inclusive and to create a powerful lobby for change.”

Mike Tones said that a main issue was that local food was seen as a middle class prerogative, which could be constraining local food:

“All the foodie stuff is all niche marketing. It’s very middle class. Great in Durham, but come up to the Dale, and it’s a completely different world. And it can’t be seen like that...unless you get a mass of population on board, we’re sunk. So somehow it’s got to go beyond that...Perhaps that will only come when it’s a

necessity [e.g. the effects of peak oil and climate change] and that's dreadful, but that's the likelihood."

The conviction held by some of the local food businesses, that the rising price of oil will hinder global transportation of food, and make localisation of food distribution an inevitably cheaper option was expressed by Jamie Bond, of New Close Farm Shop:

"In the long term it will be too expensive for a national food distribution network. You won't be flying stuff in from Africa, nor from Southern Europe. I think people will have to accept again that you have to eat seasonally unless you want to pay a fortune for it. We might have a swap again: The middle classes with a bit more money can afford to fashionably get their food from abroad, whereas people who are less well off will be going back to local food... allotments are very fashionable with the middle classes, very 'good life' - whether or not that'll be the case in 10 years, we'll see."

Mike Tones highlighted that it is still only a small proportion of people who are interested in local food and that needs to increase if local food is to reach 'the tipping point':

"When we go to Sainsbury's and we refuse to buy anything that doesn't have a British Flag on it and then we go to the complaints counter and say 'Why are you fetching onions from Peru?', but the vast majority of people don't ask those sorts of questions."

Other than these reasons questionnaire respondents also said peoples' disinterest in local food was perhaps due to "ignorance", "lack of understanding", "apathy" or being "uninformed". For instance, respondents said that people are unlikely to choose local food if they have a "lack of interest and/or education about planetary issues", if it is "not important to them", if they "don't understand the concept of 'local food'", if they have "no interest in food related issues", and if they have "too many other more pressing issues in their lives". Others suggested that perhaps "they don't think it makes any difference", "they don't know about it" or they "do not know where to get local food from". Mike Tones agrees that one of the main barriers to increasing demand is a lack of consumer knowledge about suppliers, due to many small local food businesses lacking the time and resources to advertise, having to rely on word-of-mouth instead.

A few DLFN respondents thought that demand for local food is low because of issues with the cooking and eating of local food. They suggested that people who do not buy local food lack the knowledge or will to clean, prepare and cook with raw ingredients or dislike cooking from scratch. Some claimed that “local food is boring”, that eating in season “restricts” ones diet, and that local foods such as cabbages were “not appealing”, in line with DEFRA’s (2011) findings that “choice” is the main perceived barrier. Respondents said that people were choosing to shop in supermarkets rather than local food outlets as supermarkets are thought to offer more choice and variety, again, consistent with the findings of Pir (2009).

8.4 Overcoming Barriers to Increased Demand

According to Jamie Bond consumers are the protagonist for change, rather than businesses: “It all starts with education; showing people why they should do it. If people want it, the marketplace will produce it.” Local food business respondents thought that the “mindset” or “unwillingness” of customers was one of the most significant barriers to increasing the capacities of local food initiatives. While some put this down to structural issues, others contended that education could help stimulate interest.

Mike Tones of Drygill also said that education was key to increasing the movement towards supporting more local food, but he stressed that education needs to be in the form of “immersion” rather than “*some sort of superficial pamphleting, explanation-type-education, that doesn’t bite deep and is very transient...It’s the depth of the learning that matters – the depth of incorporation into a curriculum and belief system*”. Wilf Richards similarly suggested that the main barrier is commitment, that the first steps to change are raising awareness around the importance of local food, but also building up peoples skills and knowledge to increase capacity for grow your own – something that Abundant Earth is doing by running courses on seed-saving, fruit tree grafting and permaculture design. Wilf thought that there is a need for “*more people being farmers, more people being growers – that’s the big barrier. Whilst there are people out there who have no motivation to do that – why should they when they can go to the supermarket – then not much is really going to change.*” A business interviewee said:

First steps to greater resilience is actually to start up on the awareness...we have to find mechanisms to broaden that out...In terms of eating more local food it has to become affordable, recognisable, easily available...We need small scale

supermarkets, where you can actually get your weekly shop but most of it could be local.

Some interviewees suggested that the “unwillingness” to sell and source locally is also likely to be connected to structural disincentives such as the bureaucracy that is restraining local food sales, especially in procurement. Red tape such as the EU tendering legislation was criticised for preventing SMEs from obtaining supply contracts from Councils and hospitals looking to increase local procurement, for instance. Hospitals, one interviewee told me, do not have time to be searching for local producers and filling in the forms, nor do the farmers who are, “good at farming, but not good at bureaucracy and tendering”.

John Turner and Caroline Tweddle thought that demand for local food could be increased by creating an identity for local food. Caroline said: “*Durham itself hasn’t got a name for food in the way Yorkshire or Northumberland has*”.

8.5 Overcoming the Barriers to Realise Potential Capacities of Local Food Production

Business interviewees were generally positive about the lack of barriers that geology, topography, climate and infrastructure present to capacities to meet increasing demand for local food. For example, Wilf Richards said:

I’m certain we could do it because it used to be the case...you can see how many terraced houses there are about the place, and every single one of them used to have their own allotment, and grow their own food. No I don’t doubt for a moment that we could supply a very high proportion of our food internally in County Durham.

Jill Essam also thought that County Durham has the capacity for a less carbon-dependant food system:

I think it’s possible. I think it’s a mindset. I would say, environment - yes you could do it. Yes it’s not the best environment to grow in, but we can find ways round that. There’s plenty of labour, there should be no problem. The problem is, is the mindset in the North East.

Caroline Tweddle of Acorn Dairy was also positive:

It's got the labour, and it's got the road networks as well. It's much better served by roads than Yorkshire or Northumberland, so reaching the customers certainly isn't a problem in Durham.

Mike Tones also saw great potential for increasing capacities, and did not regard environmental conditions to be an issue hindering localisation:

“County Durham was always one of those places, like Northumberland, renowned for its mixed agriculture. Wonderful pastures to grow milk and beef cattle, quite good for cereal, potatoes and other crops.”

Jamie Bond thought that County Durham has the potential to support the production of a more diverse set of crops, useful to the local populace: “You’ve pretty much got every [habitat type] from moorland all the way down to lowland, rich land so you could almost grow a bit of everything.” However, he acknowledged the constraints of the growing window: “I think we’re kind of marginal...and if you truly said you can only have things that were grown in the county you’d be restricted in what you could have.”

However, business personnel believe several factors are limiting the ability of businesses to source and supply locally, despite demand for local food. For example, John Turner said that Durham University’s ability to source from local producers is constrained by availability, seasonality, quality, being able to ensure traceability of provenance, and an insufficient volume of production.

The sample of the questionnaire respondents represents a range of business sizes, although in general they described themselves as small-scale producers, although this varied from ‘very small scale’ meaning smallholders producing less than 40 animals per year on 12 acres, through ‘small scale’ farmers producing over 120 animals on 350 acres, to larger farms where throughout the year around 4000 animals live on the farm (Q17LFB). The small number of local food businesses and their small volume of production seem to be significant constraints on production capacities. Caroline Tweddle explained that Acorn Dairy’s collection area is small because they are a small scale business and they only source from five farms.

Businesses that only supply local markets tend to be small scale, as a larger output often requires a wider distribution, and customers are only prepared to travel a limited distance to buy their groceries. Jill explained how being a small scale business means that they are

unable to benefit from buying economies of scale. It pushes up the costs of producing chickens for example:

“buying them in, [as day old chicks] feeding them on organic compound feed, the cheapest we can produce a chicken is £8.02. So compared to what you would pay in a supermarket, it’s still pretty expensive really, and that’s with no overheads... So if you were selling them, you’d be selling them for £16 or £17”.

With regards to the lack of availability of local food, Jamie Bond argued that if farmers are to engage in the sale of their product to an end consumer, this requires time and staff resources they often lack: “A lot of farmers would like to sell it direct [e.g. through a farm shop] but don’t have the time or don’t really want to be dealing with the public on a day to day basis, and it’s probably not economical for one producer to do it.” Even attending farmers’ markets is difficult for producers who lack the staff, infrastructure of generators and chillers, and who would need to cover the £30 stall hire for the day. Jamie added that he feels that New Close Farm is a more realistic model for local food retail as they are able to staff the shop, and operate it as a hub for farmers produce, This allows them to offer the consumer variety, also providing non-local organic food, at the same time as being able to source locally and sell locally and hence support local farmers without diverting the main farmer, Jamie’s father, away from the production side of the business.

Access to land is highly competitive on both small and large scales, from allotments to farms. Allotment provision is not the only way individuals are trying to access land for small scale growing projects. The Local Food Website team plan to design a ‘seeking/offering’ forum to facilitate land sharing. The Fruit Group has initiated a nursery orchard project on land belonging to St. John’s Church at Neville’s Cross in Durham; their first attempt to work with a local landowner to turn an underused area of land into a space for community food growing. Inspired by the success of Incredible Edible projects around the country, Durham Fruit Group has entered into a dialogue with the local MP on how to encourage the County Council to allow community growing projects on their land. Durham Fruit Group’s vision is to have a fruit tree growing for public benefit in Durham City area for every resident of Durham, through planting fruit trees in a series of community orchards, public spaces and private gardens and encouraging foraging for wild fruit. Their other activities fulfil all aspects of the lifecycle of food: making online public maps of local foraging sites, organising orchard maintenance and grafting courses, assisting with the harvesting of fruit from peoples’

gardens, and organising preserving and jam making events (Durham Fruit Group, Anon. 2009).

Various studies have found an inverse relationship between farm size and productive output (e.g., Barret 1993). Collaborators posited that access to land and a lack of funding are preventing the production of more local food within the food sector (Q14DLFN and interviews). In the Totnes area, in Devon, Pir (2009) similarly found that high land prices and a few large land owners were believed to limit access to smaller areas of land for smallholdings and farms. Mike Tones, of Drygill smallholding, told me how the pressure of the residential property market is impacting on land prices:

“Farming should be a sustainable business; that can support a family unit; be efficient in its food production, but efficient in a sustainable way so that the environment, the economics and the social aspects are kept in unison. And that way we would maintain a rural population, maintain our landscape, including tourism, maintain a very high quality, locally sourced food system and everybody would be happy...Mitigating against that: the property market. In Yorkshire something like in the last 3 or 4 years, three quarters of all the farms coming up on the market were split up and the holdings - that’s the farm and the buildings - have been used for residential conversions, and the land’s been taken by them or more often farmed off.”

John Turner told me that land is also under pressure from the demand for wheat and biofuels, products which tend to be sold non-locally, often on global markets. Allegedly, such crops provide a higher return and incur lower costs of labour so are often grown rather than vegetables, for instance contrary to the demands of the local populace. John Turner noted that *in order to grow more local food we would have to grow less biofuels, which would increase our demand on other energy sources.*

A collaborator from a local food business told me how land use depended upon subsidies:

“You’ve got Houghhall and Newcastle Agricultural colleges - fantastic we’re training the guys. We’ve got the resources over in the Dales. We have still got vast areas. But the equine has taken over... The money is equine support at the moment - so should that go back to farm land? Maybe that’s a bit too

controversial. You look round the East part of the county and you'll see what used to be farm land".

Another collaborator explained how subsidies tie up land in agricultural businesses that are not economically viable:

"There are a lot of farmers, who are sitting on a lot of land, who are collecting the Single Payment Scheme payment and the farm 'wipes its face'. In an open economic environment they wouldn't be farming, they'd give it up and that farm would be available to purchase for a business that is profitable and employing people."

Local food production is often a way for a small-scale business to find a niche as part of a rational business decision, allowing them to cut out middle-men and reduce transportation costs whilst adding value to their product. It can make small scale farming a viable career. Mike thought that encouraging more farmers to sell direct to their consumers could help increase revenues and stabilise prices, thus reducing the reliance on subsidies to cover costs:

If I could market [all] my lamb directly to the consumer I have no need for any subsidies or support whatsoever and I would prefer to do it that way...The way it's moving at the moment is – people are going to pay farmers to put on a white smock, a wooden yoke and stand in the middle of my hay meadow in the spring with two pails of milk waltzing around – It's a museum piece!

For Mike Tones, threats to farming are threats to our farming culture:

"Farms will change, but they don't want to change their way of life, because that's why they're in it. That's what they value. They're wedded to the land, and their spot. It often isn't treated just as a business. It's a way of life and we don't put a value on a way of life. If it goes, we have lots of consequences – loss of hedgerows, big fields and all the rest of it."

Caroline Tweddle also explained how she thinks that we need to attract people to the farming profession:

"It's very difficult to find the people who have the work ethic and the work ethos to work every weekend...It's increasingly hard to find farm workers. We've got to

highlight the fact that it's a career choice. Increasingly contractors are being used as opposed to farmers doing their own land work...that's not necessarily local people driving those tractors, they could be coming from the middle of North Yorkshire of somewhere. We've got to show more interest in our farms and make it a career that people consider, and if it's profitable, they will consider it...if you can reach your end market and tap into a better price, through increasing awareness of organic production methods and the benefits of it, that makes your business sustainable."

Mike proposed that in order to make agriculture an attractive career choice, public perceptions about farming as a career need to change. According to him, young people are not attracted to farming as a career because it is thought to be "old fashioned and dirty":

"It's a bit like engineering was, particularly for women...It didn't used to be the case, but it is now, as we've got the cleaner technologies, based on a lot of digital things, that all mitigates against an environment where somebody wants to say in a rural area and make a living from farming."

Figure 8.1 shows the responses from DLFN respondents about the activities that they think will increase production and sale of local food (Q15DLFN). The main answers were that households and smallholders producing food would increase. People believed the barriers to local food production (Q14DLFN) to be a lack of farmers committed to sell locally as well as a lack of "solidarity and co-operation amongst small producers". Others said that large areas of land are owned by a few people and that there is a lack of financial support such as subsidies, loans and grants for local food businesses. More profoundly, one person mentioned that the whole food system is supermarket orientated: "Our entire food system is set up to work entirely in the opposite direction". Another said that the local authority does not give "real support to independent businesses" such as giving them priority in planning applications over national or international chains

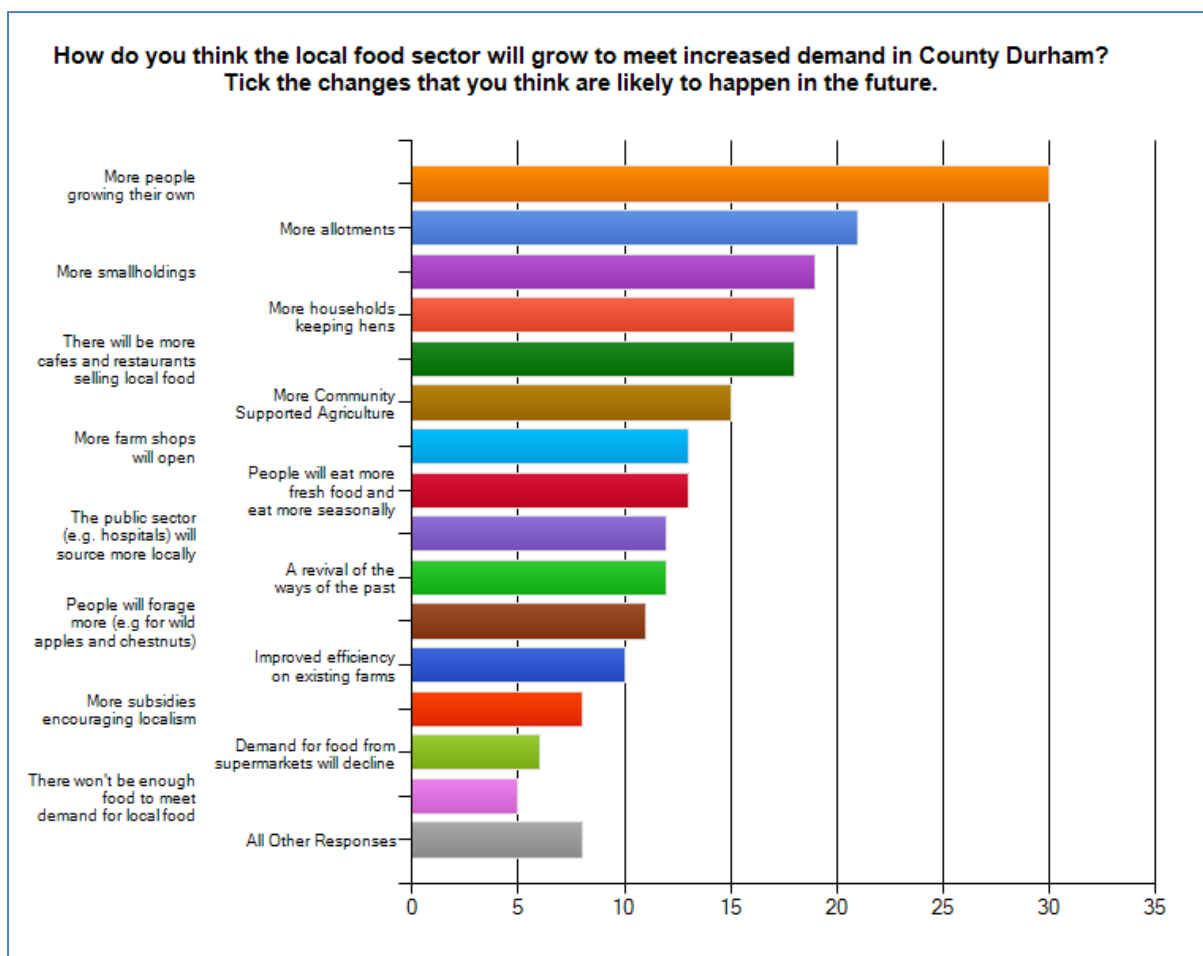


Figure 8.1: DLFN questionnaire respondents' beliefs on how the local food sector is likely to grow

8.6 Chapter Summary

In summary, there is potential for more local food activity in County Durham, given the evidence for desire and demand for local food, the area's history of food production, a strong labour market, agricultural education centres and road infrastructure. Reported sales and reported consumption, as well as levels of demand for allotments and land for growing, are examples of this increasing interest. However, consumer interest in local food is not necessarily translated into action or sales.

Increasing the market for local food may well need input from policy makers, the media and supermarkets as well as from grass roots groups. Local food needs to become (and/or be perceived as being) more accessible, convenient and good value for money. It needs to appeal beyond the 'foodies' and middle classes, and needs to prove it does not have to mean a diet

restricted to potatoes and root veg. Increasing demand for local food may be a matter of educating people about agricultural methods and cookery. In order to work towards achieving potential capacities, activists should target their activities at overcoming the restraints to increased demand and production. Structural factors are also highly problematic to stimulating supply of local food, such as access to land including public and urban spaces, allotments, as well as land for farms. Agricultural output is heavily influenced by subsidies which incentivises the production of wheat and bio-fuels for instance, which are then sold on the global market. Farming needs to become both financially viable and a desirable career choice. Local food can offer greater revenues, as it cuts out the middle-men and has reduced costs associated with transport, for example. It can also offer more attractive work where pride is often taken in animal welfare and organic methods, producing high quality food for consumers they know personally and who appreciate the provenance of the food and the livelihood of the farmer, for example. Council and planners have their part to play in increasing access to land, integrating production into urban design, in supporting independent retailers and in releasing more land for growing. Many farmers lack the time to farm, process *and* sell food. More collaborative ventures between local food businesses could share the risks and allow workers to not need to diversify beyond what is manageable. The bureaucracy which surrounds EU tendering and organic certification are further structural restraints.

Chapter 9

Conclusions

This study contributes to literature on grass-roots local food activism. It explores the resilience of local food phenomena as manifest in the activities sustaining the local food scene in County Durham. In particular, I considered the bio-physical (ecosystem) and socio-economic (livelihood) functions and capacities of the social-ecological food scene. Through mixed co-inquiry methods, including questionnaires, interviews and participant-observation, I studied emic understandings, that is, the experienced cultural worlds of people who identify themselves with the scene. I describe the practices, subjective understandings, motivations and social relationships of individuals and groups within the scene and found that Durham local food scene encompasses people actively engaged in a range of practices and with diverse motivations for, and interests in local food, who collectively are building resilience into the local food system. The motivation of economic resilience was particularly strong, whilst ecological resilience (especially in relation to climate change and peak oil) was evidently being built, despite this not being reported as the primary motivator.

The emergent and renewed forms of social-ecological response seem to be less vulnerable to the challenges of climate change, peak oil and economic contraction. The local food system appears to be capable of adapting to and absorbing these disturbances, without fundamental transformation or collapse of the system. Furthermore, actors within the local food scene even seek opportunities to benefit from these impacts. I also found parts of Durham's local food scene to share objectives with the New Economic model of sustainable consumption; enabling individuals and groups to change their consumption patterns.

In terms of 'specified resilience', in this case to climate change, peak oil, and economic contraction, I conclude that the evidence suggests that the local food scene has a higher latitude to change, that is, it can absorb disturbance and reorganize, whilst retaining essentially the same identity. Second, I conclude that the local food scene has a decreased resistance to change, and third, the local food scene's practices are less dependent on precarious resources, meaning it is further from thresholds.

The local food system also appears to build resilience according to Berkes *et al.*'s principles for building resilience (2003:355): The people in the local food scene are “learning to live with change and uncertainty; nurturing diversity for reorganisation and renewal; combining different types of knowledge for learning; [and] creating opportunities for self-organisation.”

Research Outcomes

The overarching aim of the collaboration was the creation of a producer-consumer network to strengthen the local food sector. Appendix B outlines how I disseminated my research findings and Appendix C describes the skills I developed, and the training courses and activities I participated in during the period of my research. In addition to this thesis, I achieved the following outcomes.

- Developed marketing material such as flyers and emails for DLF website.
- Built a rapport with farmers and producers.
- Run local food information stalls at events to promote local food.
- Assisted with grant application writing and editing with DLF website team.
- Volunteered at Abundant Earth.
- Helped with the Network's general activities and co-ordination
- Compiled a local food directory and research section for the DLF website
- Increased membership of Durham Local Food from approximately 80 to 300 members.
- Organised events such as volunteer days and trips to local food producers

Main Findings

- The local food practices of people in the local food scene, including allotment holding, the local food sector and local food activism do indicate a high level of social-ecological resilience.
- Rising input prices will be a main driver in encouraging the food sector to use their resources more efficiently and the Climate Change Act will require the sector to drastically reduce their emissions. As the most energy in the food system used by net trade and households, which, in addition to farming are also the largest sources of

GHGs in the UK food system the economic and environmental incentives for food system localisation are increasing.

- ‘Local food’ is a highly contested term. The multitude of meanings encompass ideas about geographic distance, scale of production, and short food chains, for instance.
- Defining a strict definition for local food can be unhelpful, as the variety of meanings, practices and motivations allow for increased adaptive capacity.
- Meanings attributed to local food relate to motivations, and together reflect values and ethics which often relate to mutual support and fairness of relations, particularly in relation to the local economy and local employment.
- Local food is often associated with high levels of transparency which allow consumers to make informed judgements about their food.
- Common conceptions about the uses of energy and emissions in the food system may not always relate to the scientific evidence. The popularity of the ‘food miles’ concept, for instance, puts emphasis on commercial transportation, when net trade and households have been shown to contribute a greater amount to UK energy use and GHG emissions, and production is the main source of GHGs in the food chain. Refocusing on such data may reveal how to encourage adaptive pathways with greater benefits for the environment.
- Collective action is helping new institutions to emerge which enable individuals and groups to change their consumption patterns to localised food systems.
- Social factors in addition to motivational factors are fundamentally supporting endeavours to localise the food system.
- Whilst desire for local food is high, there are significant restraints hindering the opportunities for greater demand and production of local food. Grassroots action will need to be met by policy decisions in order to substantially increase the market for local food.
- Opportunities for overcoming these barriers at a grassroots level abound.

In order to keep opportunities up-to-date, recommendations for further research to support local food are on the Durham Local Food Website. I do hope you can contribute.

Appendix A

Research Information Sheet and Confidentiality Agreement

Local Food Research



Information sheet

‘Local food’ is a research project being undertaken by a postgraduate student at Durham University in collaboration with DLFN. The aim of the project is to support local food producers, suppliers, processors, retailers and consumers towards strengthening Co. Durham’s local food sector. The focus is on the practices, motivations and interests of local food businesses and groups involved in any part of the food life-cycle from agriculture to distribution and consumption. Through questionnaires, interviews and participant observation the researcher hopes to establish how a change in practice could be stimulated towards increasing local food production.

Confidentiality

The results of the study will be written up as a dissertation, which will be housed in the university library. They may also be used in academic papers for publication in books or journals, and non-academic summaries may be produced for wider circulation. In all of these all possible steps will be taken to ensure confidentiality. Most of the analysis will involve aggregated figures and trends. If on occasion there is reason to name or otherwise identify individual people or businesses, this will be done only if they provide their explicit permission. A summary of the project’s findings will be available upon request.

The information will be collected, stored and managed in accordance with the Data Protection Act (1998). Confidentiality will be upheld and any commercially sensitive information will be held in the strictest confidence. Recording devices may be used during interviews, subject to the consent of the person being interviewed. These recordings and written transcriptions of what was said in interviews will be used by the researcher. They may

also be archived in a database to which other academics may, with permission and for the purposes of their own research, be given access.

Participation is voluntary and participants maintain the right to remain anonymous, to decline to take part, to withdraw from the study at any point, to view any data held about them, and to request that such data be removed from databases and withheld from further circulation.

Appendix B

Dissemination of Research

The more formal methods of dissemination included the following:

- I presented on ‘The Advantages of Local Food’ at a Forum with Paul Chandler, CEO of Tradecraft on “How can Fairtrade respond to the challenges of climate change?”
- I presented a poster at the Durham University Researcher’s Poster Competition, which took place in the Town Hall on 9th March 2010 and was open to the public. I also presented a poster at the Durham University, Anthropology Department’s Annual Postgraduate Conference on 28th April, 2010, winning a prize for best poster design. I then used the poster to explain my research to members of the public at DLFN’s local food information stalls.
- In February 2011 I was invited to present at a debate organised by GreenComm at Josephine Butler College, Durham University. The debate was framed within the context of whether we should focus our consumerism on local or fair trade goods.
- Later I presented to a public audience at a seminar at Ustinov College entitled “Let’s talk about food: food, production, consumption and traditions in the UK.”, with guest speaker Jonathon Porritt CBE.
- I was interviewed by Andrea Armstrong, a researcher for the Beacon North East Co-Inquiry Action Research (CAR) Project, who support, recognise, reward and build capacity for public engagement. Andrea has written a case study of my research as an example of a co-inquiry approach to community-university collaboration. The case study features on the National Coordinating Centre for Public Engagement (2011) website. The project shares learning about co-inquiry as an approach to community-university engagement.
- The executive summary of my research will be available on the research section of the local food website along with ideas for future research
- A copy will be housed in the Transition Durham resource collection
- A copy will be available online as an e-thesis and a hard-copy will be housed in Durham University Library.

Appendix C

Researcher Development

My worldview was shifted by my experiences in the field and my commitment to grassroots local food activism extended beyond an academic inquiry.

As Environment Representative for my college's postgraduate community, I was also connected to the wider student Sustainable Living Action Group whose objective was to encourage students within Durham University to alter their lifestyles to become more environmentally sustainable. I also became President of Durham University Allotment Society, which I established, wrote the constitution for, and sourced funding for together with the two other member of the executive committee. I was part of the St. Chad's College Environment Team - a team of staff and students who aim to lower the environmental footprint of the college – and a member of Durham Energy Institute – which aims to become a world leader in generating new knowledge at the interface between energy technology and its implementation in society.

I extended my connection to the academic community online, as a member of the Food Climate Research Network and the Sustainable Development Research Network which both informed me about the latest research in their respective fields.

Throughout the research process I embraced all opportunities to learn and practice new skills. Below I outline the formal courses I undertook, before describing my future directions.

Taught courses

72 Hour Permaculture Design Course. Permaculture uses systems thinking and design principles that provide the organising framework for systems which mimic the patterns and relationships found in nature. Permaculture principles underpin the practices at Abundant Earth and within Transition projects.

Forest Gardening Course, Old Sleningford Farm, North Stainley, Ripon. This one day course was an introduction to growing fruit, herbs, salads, vegetables and nuts in a highly

productive but potentially low maintenance planting scheme also known as an edible woodland

National Transition Training Weekend. This formal training provided me with skills to facilitate Transition activities.

Durham University Graduate School Researcher Training courses are for postgraduates. Amongst others, I attended some which have inspired my career choice,: on ‘Social Enterprise: a third way’, on ‘Working in the North East’, others that have given me the confidence to use new techniques ‘Introduction to Giving Presentations: Planning and Preparing’, ‘Introduction to Giving Presentations: Delivering’, ‘Assertiveness for Postgraduates’, An Introduction to Time Management, ‘Poster Production and Presentation - An Introduction’, ‘Using interviews in research’, ‘Centre for social justice and community action: Community organising’.

Level II ‘Environmental Principles and Best Practice’ accreditation of the Chartered Institute of Environmental Health. This award is designed to show a high level of environmental knowledge and awareness

Using Interviews in Research Course. This session explained the different types of interviews, assisted me in identifying which one is right for my research and guided me through the process, from preparing an interview schedule, selecting collaborators, considering ethical issues, conducting the interviews and recording data.

Grafting course and seed saving course. These practical courses run by Abundant Earth taught me about fruit tree grafting and how to harvest seeds from plants for planting the following year – both examples of how to minimise external inputs for production.

Skills

Whilst such training bestowed me with formal and to differing degrees practical knowledge, my enskillment was also enhanced through experience. As a result of the research, I feel that I have improved in the following skills:

- Team working
- Email communications
- Directory researcher and compiler

- Website editing and design
- Facilitation of meetings
- Horticultural knowledge
- Giving presentations
- Writing funding proposals
- Networking

Future involvement

The social networks and ongoing project commitments that I have made within the scene have not only informed my identity but have also tied me to Durham and the local food scene. I have made my site of interest my home and hope to continue my activism in the long term.

Appendix D

Profile of Allotment Questionnaire Respondents

Along with the research information sheet, I sent invitations to three groups: allotment holders and prospective allotment holders of St. Margaret's Allotment Association (a 5.5 acre allotment, in Durham City, involving 118 households and with 46 on the waiting list) which has about 60 plots, allotment holders and prospective allotment holders of DLFN, and people on the Council's Durham City allotment waiting list. In retrospect I could have also included questions for people who grow their own, rather than just for allotment holders and prospective allotment holders. I will explain how I addressed these three groups and how I presented the aims of the research to them slightly differently.

The first invitation was sent via email and in person to allotment holders and people on the waiting list for an allotment of St Margaret's during their Open Day. In their invitation I presented the research as being of benefit towards work to strengthen the local food sector, especially through supporting the interests of local food producers and consumers and in person I was able to explain the research more fully.

A separate invitation to respond to the questionnaire was sent to DLFN, although I specifically asked for people with allotments, or on the waiting list of an allotment in County Durham (whom I refer to as 'prospective allotment holders') to respond. I titled the email 'More allotments in Durham?', and presented the research as being of benefit in helping to inform allotment providers of the need for more allotments in the county. Thirdly, to further include the views of people waiting for allotments I collaborated with Paul Irwin, Principle Leisure Manager at Durham County Council who sent a letter to all people on the waiting list, living in Durham City area. He presented my research as 'research relating to local food networks.

In total, there were 42 respondents to the allotment questionnaire conducted in August and September 2010. 23/42 respondents were allotment holders (Q1Allot.), who had held their current allotment for a variety of time, from less than 6 months to 25 years, although the majority had had an allotment for less than 4 years (Q5Allot.) (fig. D1).

Of those respondents who did not have an allotment plot, 9/19 were on a waiting list for an allotment (Q2Allot). Eight of these people answered how long they had been on the waiting list (Q3Allot). All of whom said it had been less than 6 years, with most people having waited less than two years.

Of 32 respondents, 6 people claimed to have previously held another allotment. All these people had held the allotment between one and ten years (Q21Allot)

Of the respondents who were allotment holders or prospective allotment holders, 14 were male and 16 were female. Results (fig. D2) suggest that these respondents were mostly born pre 1970. All were born between the 1940s-1980s, with the largest amounts in the 1940s, 1950s and 1960s (Q12Allot.). This suggests that most allotment holders are in the age bracket of 50 to 70 years old. Only 6/30 respondents were born in the 1970s or 1980s. A few respondents keep hens for food, but none keep any other animals for food (Q19Allot.). Over half of respondents forage (Q20Allot.). Three quarters consider themselves to have “quite green” lifestyles (Q15Allot.).

All but one questionnaire respondent said that they are keen to support local food in Durham (Q28Allot.) 31/40 said ‘very much so’. The remainders said that they were, but that it depended upon factors such as convenience, time, availability outside of working hours, accessibility, parking, cost, quality of produce, availability in supermarkets, the carbon footprint of the produce, and still buying food from overseas because foreign producers “rely on sales to the UK”.

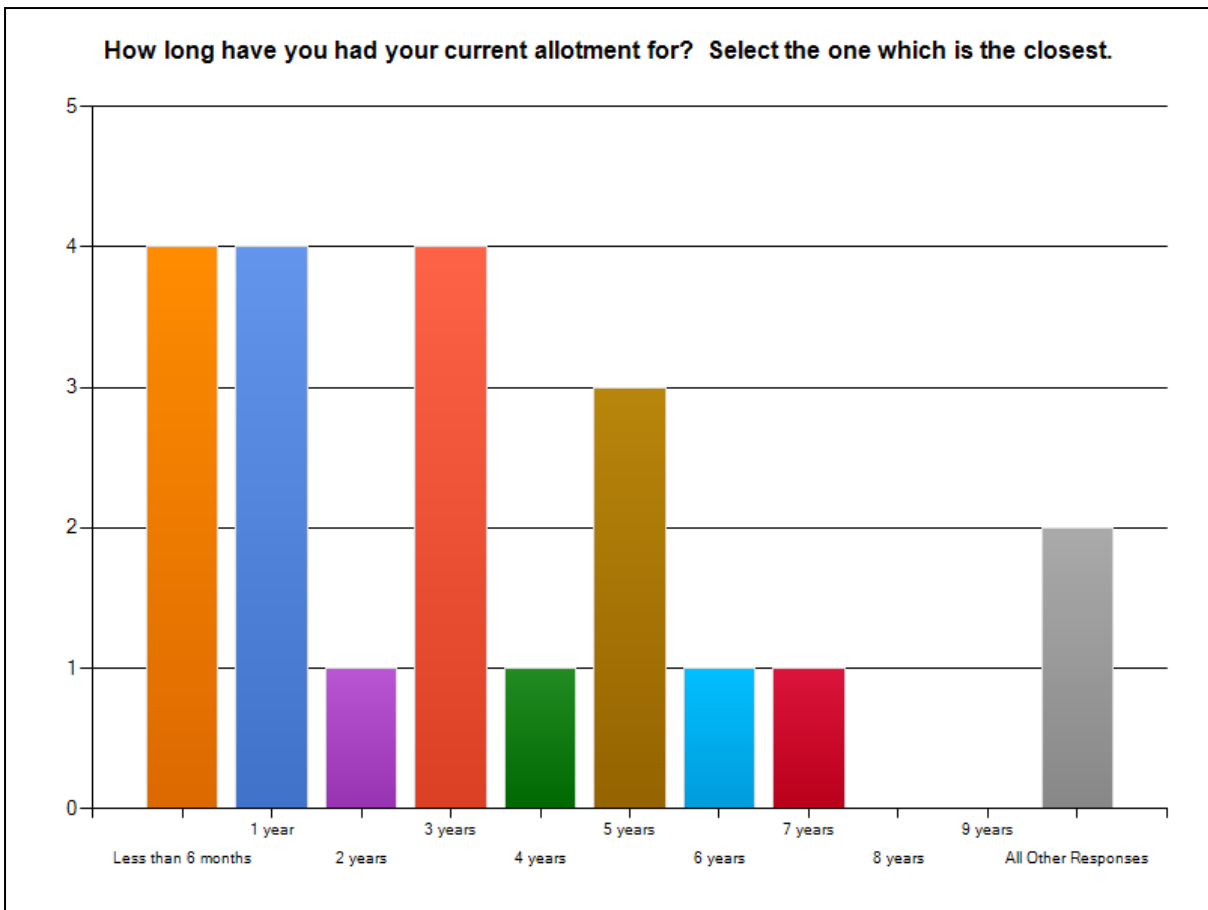


Figure D1: Duration allotment holders have had an allotment for.

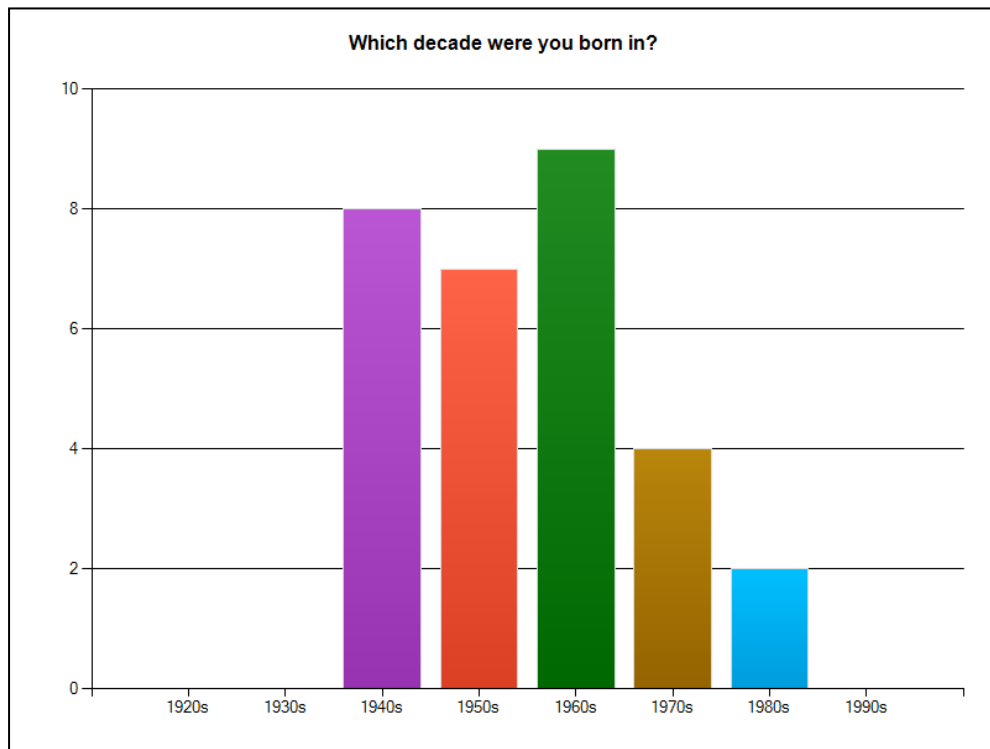


Figure D2: Allotment holders' decades of birth.

Appendix E

Profile of DLFN Questionnaire Respondents

DLFN began in early 2006 as an outcome of the Durham Local Food Celebration organised in 2005. During 2009, the network was re-launched as a Google Group and membership began to increase more rapidly. Membership stands at around 300 members (May 2011). They officially describe themselves as a group of local food enthusiasts, growers, producers, farmers and consumers who aim to increase local food production in the Durham area. A significant amount of members work commercially in the local food sector. The Network looks towards building a resilient, low energy food economy through supporting existing producers and retailers, initiating new initiatives and projects such as community gardens and co-operatives.

An invitation to complete the DLFN questionnaire was sent to DLFN members, through the Google Groups mailing system. It was sent from myself and the DLF Website Team. The benefits of the results were represented as helping us to develop the DLFN, and the DLF website towards supporting the local food movement, as well as contributing to my research looking to also support the LF sector. The invitation only referred to the questionnaire invitees as DLF Networkers, and not explicitly as 'consumers' or 'activists' etc. 42 members started the questionnaire and 39 completed it. The questionnaire was completed during September 2010. At the time there were approximately 200 members to DLFN. In May 2011 there were 300. Below I outline their responses to questions on their personal identities and how they relate to the group.

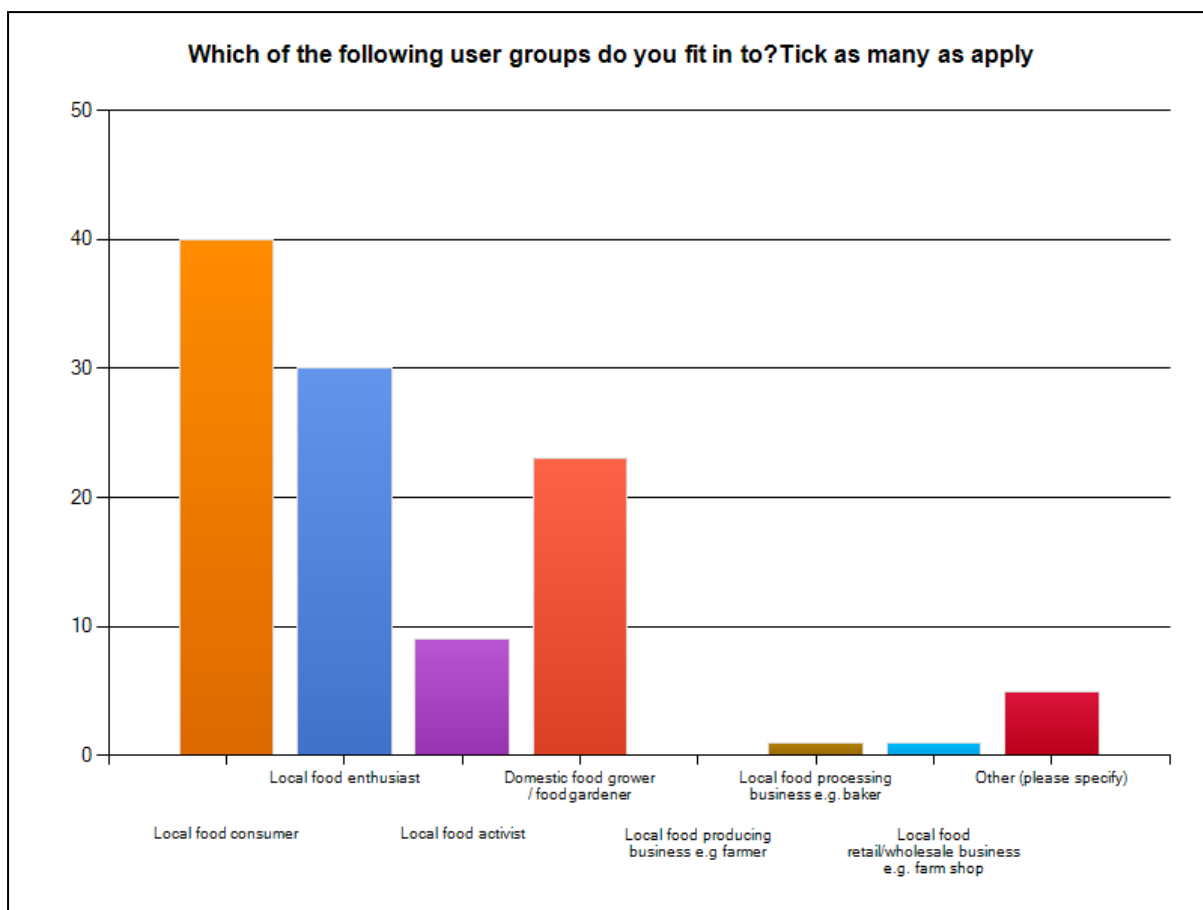


Figure E1: DLFN member's local food self-identities

When asked what 'user groups (Q1) they fit into' respondents overwhelmingly chose 'local food consumer' (40/42 people) (fig. E1). Nearly three quarters of respondents (30/42) considered themselves to be a local food 'enthusiast', and over half (23/42) identified themselves as a 'domestic food grower/food gardener'. Fewer people consider themselves to be 'local food activists' (9/42). No local food producers were in the sample, and only one processor and one retail business took part. A few people also described themselves as researchers or working in a line of work associated with health, cooking and growing.

Respondents were all between the ages of 21 and 70, with an even spread of people in their 20s, 40s and 50s, and most people in their 30s and few people in their 60s (fig. E2) (Q3). Given the size of the student population of Durham City (up to 30% of the population during term time), these results would indicate that not many teenagers or undergraduates were members. The majority of respondents were female (27/42) (Q2).

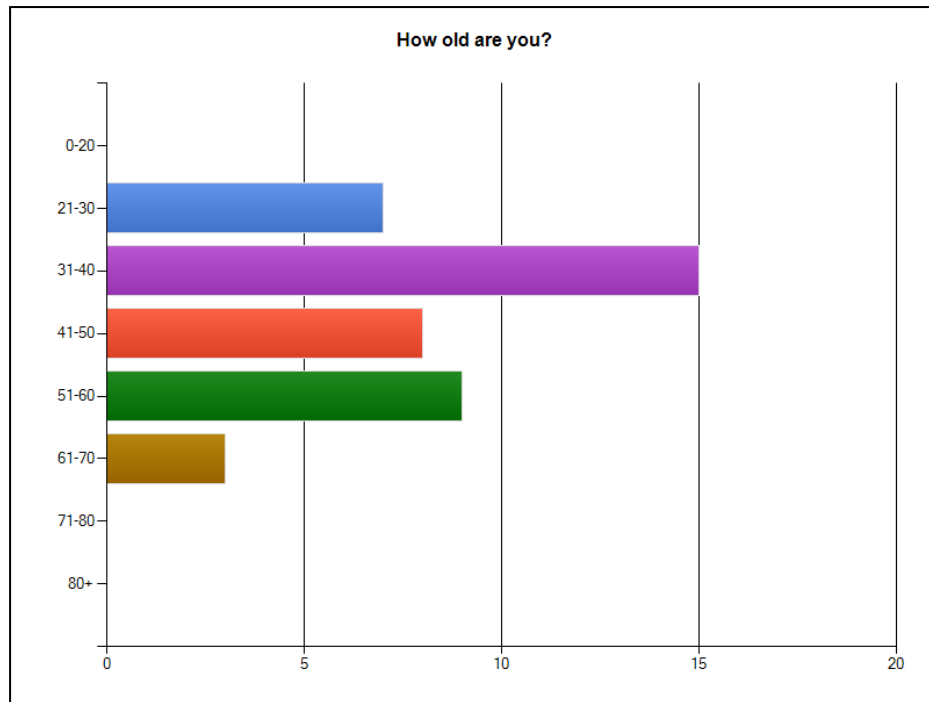


Figure E2: Age profile of DLFN members

DLFN responses indicated that the members of the Network have a wide variety of identities (fig. E3) (Q4). Selecting from a list of how they would describe themselves, they primarily represented themselves as being keen to support the local economy, secondly as pro-organic, and joint thirdly, as ethical consumers and having a healthy diet and good nutrition. Other notable self-descriptions were that over half were concerned about peak oil, and climate change scepticism was extremely low, with only one respondent describing her/himself as such. Nearly a quarter were vegetarian, and the rest were omnivores. Over half described themselves as environmentalists, and a similar amount were said that they were keen on the permaculture approach.

Less than half but over a third described themselves as green (18/42), and as ‘liking Hugh Fearnley-Whittingstall’s food principles’ (18/42). Hugh Fearnley- Whittingstall is a food writer and broadcaster renowned for his campaigns and commitment to seasonal, ethically produced food. Small numbers of respondents described themselves as ‘foodies’ (12/42), ‘conservationists’ (12/42). A few people described themselves as ‘anti-capitalist’ (11/42), as people who ‘avoid supermarkets’ (11/42), or as ‘liking Jamie Oliver’s food principles’. Jamie Oliver is a celebrity chef whose food philosophy prioritises fresh, healthy food. His campaigns have promoted animal welfare, grow-your-own and healthy eating.

Few people described themselves as a ‘freegan, or occasional freegan’, ‘ecologist’, or a ‘hippy’. A few were keen on the biodynamic approach.

Others mentioned enthusiasm for the cuisine traditions of the region such as “pease pudding, stotties, broth, panacaltie and carlins” and another commented that they desired self sufficiency.

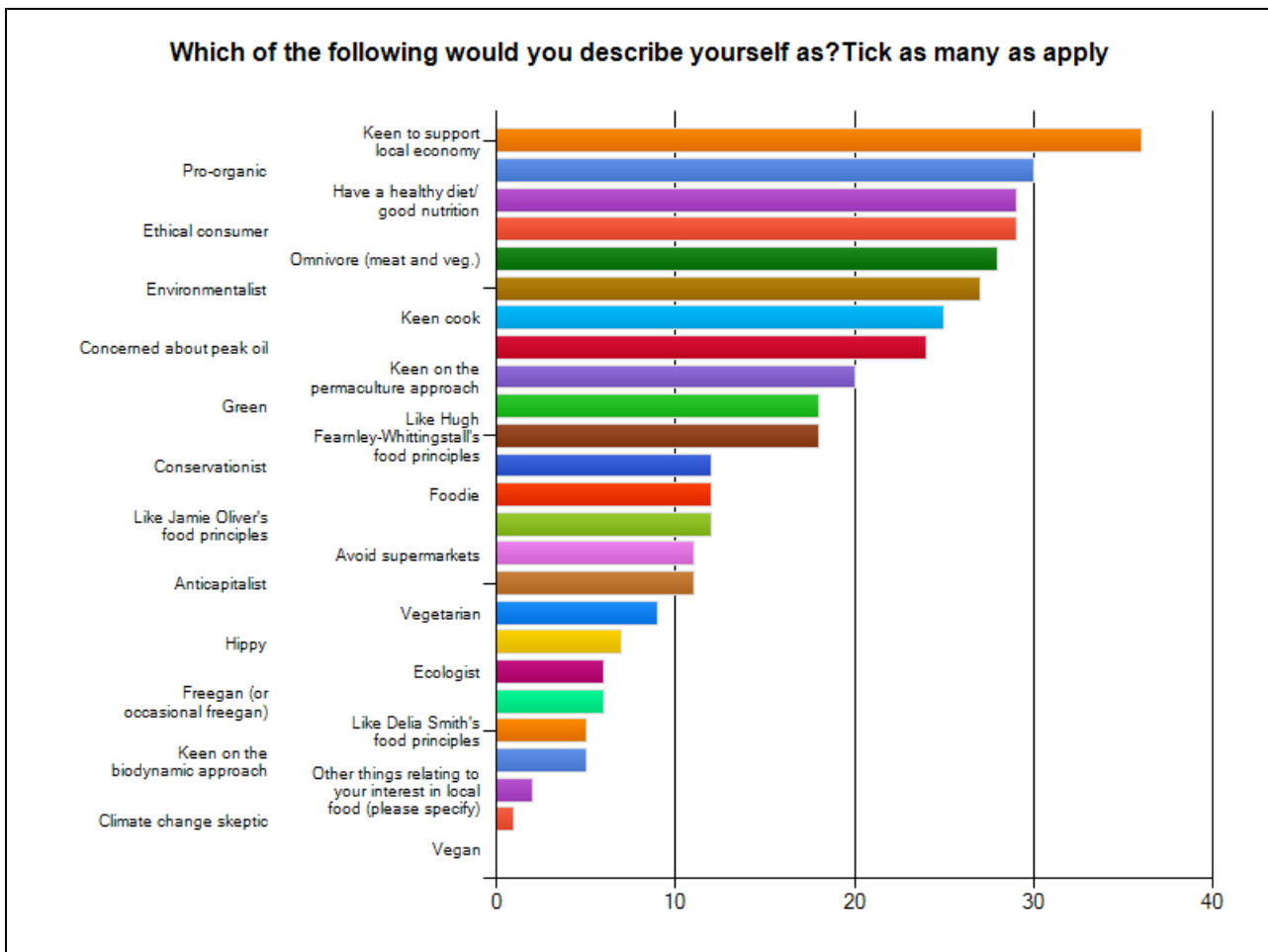


Figure E3. Interests and identities of DLFN members

Appendix F

Local Food Businesses Questionnaire Respondents

After compiling a database of businesses, I invited the ‘owner/manager’ of approximately 100 ‘local food initiatives’ to take part in the study. In the invitation to complete the questionnaire I highlighted how the research was aiming to support the local food sector. The 22 respondents represent a range of stages of the food chain: 4 restaurants and pubs, 3 farm shops, 3 farms, 3 processors, 2 community/educational initiatives, 2 dairies, 2 CSAs, 1 shop, 1 caterer, 1 unspecified. All respondents maintained that “most of the business’ products are consumed by local people” (Q13), and although to varying extents, all respondents considered their business to be a ‘local food’ business (Q12).

Respondents’ positions in the businesses varied. There were 6 owners, 5 managers, 3 directors, 2 unspecified, 1 proprietor, 1 member of owner’s family, 1 co-operative member, 1 secretary and 1 partner (Q3). The businesses were fairly young, eight of them having been established from 2005-2010, six from 1999-2004, two from 1992-1998, two from 1986-1991, one established 1974-1979 and one established before 1968 (Q8). 18/22 of the businesses had always been involved in local food, leaving only four that had presumably converted to a more local food model more recently (Q9).

Most of the businesses were SMEs with the businesses mostly employing 1-5 people. 3 businesses employed nobody (although the question did not ask whether this included the respondent), 3 businesses employed 5-10, 3 businesses employed 10-20, one person employed 20-50 people and 2 businesses employed over 50 people (Q6). The businesses also varied by the number of customers they had from up to 50, to thousands of customers (Q11).

When asked to tick ‘as many answers as apply’ most of the businesses described their business’ structure (11/22) as a company (Q10), but the others respondents described their business as the following: 8 were self employed, 2 were social enterprises, 2 were co-operatives, 2 were CSAs, 1 was a smallholding, 1 was a community interest company limited by guarantee, one more was a sole trader and another described themselves as an a higher education caterer.

Appendix G

Profiles of Local Food Businesses Interviewees

Further to the summary provided in Table 1 (Methodology), the following business profiles provide a fuller description of the six businesses, whose personnel I interviewed drawn from the business questionnaire respondents.

Wilf Richards, Director and co-operative member, Abundant Earth, age: 37

Established in 2006, Abundant Earth, a CSA and social enterprise, runs a low carbon veg. bag scheme which uses no fossil fuel powered machinery. Four cooperative members, two male, two female, manage seven acres of land, with the help of up to four WWOOF (Worldwide Opportunities on Organic Farms) volunteers. All of the work is done by hand, using permaculture and organic principles. Through a veg. bag scheme they provide 30-40 customers, all living within a few miles from Durham City, with a wide variety of seasonal vegetables, salads, fruits and eggs. During the less productive times of the year, they supplement their own produce with organic vegetables bought from Goosemoor, an organic grower and supplier in Wetherby, Yorkshire. They keep about 20 sheep as well as their 50 egg laying hens. Abundant Earth do not source any produce or inputs from outside the UK, and are strongly committed to sourcing food that is grown as near as possible to the customers. The business has very little dependence on fossil fuels. Transportation is the most energy intensive part of the business, although their delivery to customers is 10 miles round trip once a week. Besides their Landrover, they only use fossil fuels to power the kettle and they use no electricity on site.

Wilf, one of the four cooperative members, considers himself to be a community activist, and is founder and a key contributor in DLFN and the DLF Website Team. He was also my business collaborator for this research.

Jamie Bond, Owner's Son, New Close Farm, age: 31

Set on 30 acres of land, a few miles to the west of Durham city, New Close Farm has been in the Bond family for 40 years. In 2003 they established their farm shop to initially sell their own produce, but now they sell more than they could grow. Jamie is the farmer's adult son,

and his day job is in public health, specialising in pollution control and chemical risk management. He has a degree in Environmental Management. His Father works full time on the farm and his mother and himself work part time and a couple of others work part time. Much of the work is done by hand and they use organic methods, keep rare breeds, farm extensively - the animals are free range, kept in small numbers and are grown slowly. They keep cattle, sheep, poultry, egg hens and pigs and grow fruit and vegetables, the products from which they sell in their farm shop. Only certain types of root vegetables and potatoes will grow where they are, but they grow softer produce in polytunnels. They retail some organic products from abroad, but they try to source as locally as possible. The Bonds also sell locally through a box scheme. The business has up to 200 customers, all of whom live within roughly 50 miles.

Jamie is a member of DLFN and so are some of his customers. He's interested in the Network because he hopes it will improve transparency of the local food sector, inform him about market opportunities, and provide him with a space for marketing New Close Farm.

Jill Essam, Director and Co-op member, The Harehope Quarry Project Ltd., age 47

The Harehope Quarry Project, Frosterley, County Durham, started in 1998, aiming "to practically demonstrate a more sustainable way of living. This is achieved through its education and training programme, community events and the development and management of the site" (their leaflet). The two founder members have backgrounds in environmental education and environmental management. The site is a 14 acre smallholding and nature reserve, with 2 acres of carp ponds, bees, 60 chickens, geese, 1 pig, 1 cow, a calf, and a quarter of an acre of allotments all located on a redundant quarry site. There are 14 co-op members at present. Their eco-classroom uses energy from solar, wind and hydro power, but they are not grid-connected, so they cannot supply to the grid. Water is supplied from a borehole and rainwater harvesting, and is heated by solar panels. The classroom features a living roof and is insulated with recycled newspaper. The project's educational programmes cover early years to adult education days and include themes such as biodiversity, rocks, fossils, landscapes, heritage, and sustainable lifestyles. All the food produced on the site is consumed on site or within three miles, apart from the carp for which there is only a small market for locally, as it is a speciality product. The people who work on the allotments all live in Frosterley village (1 mile away), eggs are all distributed within Frosterley, and 5 families who all live within Frosterley and neighbouring Stanhope are members of the pig

club - who keep one sow and raise the piglets. The 6 geese go to the co-op members at Christmas. Most work is done by hand, and based on organic principles. The social enterprise employs less than five people and frequently receives volunteers.

Jill is a member of DLFN and is keen to sell more food in the next five years to local people, rather than producing for a small group of people. She has a background in community development work and teaching.

Mike Tones, Owner/ Farmer, Drygill Farm, age 63

Mike established Drygill, Weardale, in 1978, and considers it to be a hobby farm. He raises 40 lambs on 12 acres of Environmentally Sensitive Area (ESA) herb-rich upland each year. The lambs are not fattened on concentrate or supplements like most lambs: Instead they feed on their mothers' milk and then they only eat grass. They are slaughtered and butchered two miles away from the farm. Originally Mike sold the lamb through farmers' marts, but about 10 years ago Mike began to market it directly, selling it to local people in boxes by the whole or half animal whilst about half goes to a dealer. Mike would prefer to market all of the meat directly but does not have time to build up his customer base. All the lamb and hogget (lambs between one and two years old), which he sells to up to 50 customers, is consumed within 50 miles. Mike does not employ any other workers. He uses a tractor, trailer, muck spreader, and chain harrows which are all powered by diesel.

Mike has been involved in education at the EWE centre in Esh Winning, teaching primary children about where food comes from. For example he helped to raise lambs on the school grounds. At the time of the interview Mike was not a member of DLFN but after telling him about it he enthusiastically joined and also submitted his details for the website's local food directory.

John Turner, Community Executive Chef, Durham University

John is the University catering lead procurer with approval from Shona Millar, Head of University and Colleges Catering and in coordination with the procurement department. He sources all the food served in 10 of the catered colleges, as well as at events and conferences of Durham University. The university spends £2.7 million a year on food, making it one of the biggest food spenders, apart from the processors, in the County. Many other universities, colleges and schools contract their food in from companies such as Sodexo, although

increasing amounts are self catered. The university has always sourced local food, but since 3-4 years ago John has been working within University Catering and Procurement sustainable purchasing policy to initiate more supplier contracts with local food businesses. According to John, Durham University is at the forefront of such work to improve procurement of food at universities, lowering the carbon footprint by localising sourcing and considering the provenance of food from soil to plate. For instance, no food is air freighted, fish is Marine Stewardship Council certified, they buy hake rather than fish from the North Sea, nor do they buy any haddock or cod, they try to buy sea-freighted fair trade bananas when available, all whole eggs are free range, RSPCA freedom food accredited, English apples are used when available and the use of beef is being reduced whilst promoting pulses and vegetables. They have drastically reduced road miles by coordinating suppliers to work with one distribution company and they have also streamlined menus and orders between colleges, reducing deliveries. The colleges cater for several thousand students every day during term time, and students are consulted on the food provided. John and his colleagues have also changed the menus to suit the grower collective, agreeing quotas to support base funding. They have been working with local businesses to grow the use of specific products and advising businesses on how to compete with the multi nationals.

John is not part of DLFN, but he is keen on the prospects of the LF website.

Caroline Tweddle, Director, Acorn Dairy Ltd., age: 30

Acorn Dairy is the only organic dairy in County Durham. In total the land is 243 hectares (600 acres), with a processing and bottling plant and farm based at Archdeacon Newton on the outskirts of Darlington, and a further farm in Lower Wensleydale. Caroline works with her brother and parents on the farm. The business also employs 30 people and they have 3000 doorstep / wholesale customers whom buy their milk and stocked range of other organic products including bread, cheese and yoghurt. The farm converted to organic in 1998, and then became certified organic in 2000 when they started to sell their milk directory under the 'organic and local' Acorn Dairy brand.

Acorn Dairy processes milk from their two farms as well as from two further organic farmers in North Yorkshire and Northumberland. Caroline thinks they source from a relatively small collection area compared to most dairies. Elsewhere, it is not uncommon for milk to be tankered 50 miles or more to be processed and then hundreds of miles to the end consumer.

The Tweddle family, sell their own milk and dairy products through doorstep delivery schemes locally, a line of business which they have built through ongoing work to build knowledge within the towns that households can have local, organic milk delivered. This has created employment for 12 milkmen within Acorn. Acorn have won contracts with local councils in Newcastle and Darlington. They also supply to schools, shops, farm shops, cafes, restaurants and supermarkets within about 50 miles, and beyond that via wholesalers and distributors. However, Caroline would not object to distributing more widely, if it was cost-effective. Other dairies in the area such as Rock Farm, Lanchester, Embleton and Medina sell much larger volumes, compared to Acorn which is relatively small for a dairy. Most other farms sell to a big dairy buyer such as Arla or Dairy Crest which are able to process it more cheaply due to their economies of scale pool the milk from hundreds of farms and sell it on, and hence are more competitive on price, with much of it going to supermarkets, with the supermarkets' own label on. To compete with these bigger dairies, Acorn Dairy sells directly under their brand and thus differentiates its product.

They do not use any coal or gas, but the tractors, transit vans all run on diesel. Caroline said that the processing plant where the milk is bottled uses the most energy in the business:

“...because on the farm side, we're doing what the farm naturally produces. We're not bringing in much energy other than running the equipment and tractors, and bringing in the straw. But we're not shipping in feed from South America, soya for example. So it's definitely the processing plant [which is using the most], that is using '3-phase electricity'”.

They have solar panels are looking into installing wind turbines.

Caroline occasionally goes into schools to talk about organic dairying and the farm has open days for their customers. Caroline is a member of DLFN but she was not sure whether she had read any of the emails, but she is particularly enthusiastic about the local food website as she hopes that the “local food directory might provide access to customers. It's another point on the internet if they've managed to miss our own website, we now come up on that, which is excellent”.

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